ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 5| May 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

A COMPREHENSIVE ANALYSIS OF KINESIO TAPING'S EFFICIENCY IN VARIOUS MUSCULOSKELETAL DISORDERS

V. Uday Krishna[1] Dr. Senthil Kumar[2] Dr. Nikhilesh[3]

[1]*MPT student, school of Health Sciences, Department of Physiotherapy, Garden City University, Bengaluru, Karnataka, India.*

[2]*Professor/Research supervisor, School of Health Science, Department of Physiotherapy, Garden City University, Bengaluru, Karnataka, India.*

[3]*Asst. professor, School of Health Science, Department of Physiotherapy, Garden City University, Bengaluru, Karnataka, India.*

Article DOI: https://doi.org/10.36713/epra16833
DOI No: 10.36713/epra16833

ABSTRACT

Background: *Kinesio tape is a stretchable medical tape used to treat a different of conditions, including musculoskeletal problems. To summarise all relevant data regarding the therapeutic efficacy of Kinesio taping for the treatment of improving pain and functional skills in various musculoskeletal conditions, a systematic review and network meta-analysis approach were employed.*

Aim: *To ascertain whether Kinesio taping is a beneficial tool to decrease pain and functional abilities in different musculoskeletal conditions.*

Method: *A comprehensive research on PubMed, Medline, Google Scholar, and Science Direct database using keywords kinnesiotaping, musculoskeletal conditions, disorders, injuries, and physiotherapy evidence-based database was utilized for assessment.*

Results: *This review's findings demonstrate that Kinesio taping will improve in the pain and functional abilities in the Musculoskeletal conditions.*

Conclusion: *This review's findings provide enough proof that Kinesio taping will improve in the pain and functional abilities in the different musculoskeletal conditions.*

KEYWORDS: *Kinesio taping, taping techniques, musculoskeletal conditions, sham taping, scope of practice, evidence-based practice.*

INTRODUCTION

Dr. Kenzo Kase introduced Kinesio taping (KT), the medical taping method, to Japan around 25 years ago. This method supports the connective tissue of fascia, the muscles, and joints in place of sports tape. But unlike sports tape, KT permits ROM and is said to hasten the recovery process following an injury by reducing inflammation as well as pain.[1]

The media came to accept this different method of taping at the 1988 Seoul Olympics.[1] Since then, it has been more well-liked as a therapeutic choice, especially for athletes. Physicians, physio therapists, & athletic trainers have all tried this technique to hasten the recovery process following musculoskeletal injuries.[2]

KT tape has special qualities since it was made to resemble skin in terms of texture and weight and because it can flex between 30% and 40% of its resting length.[1,3] This tape has an adhesive made completely of heat-activated acrylic and contains no latex.3. Patients don't need to reapply the tape for up to five days while using the shower or swimming pool since the 100% cotton fibres allow for rapid drying and evaporation. This prolongs the advantages of the therapy.[3]

Usually, the tape is wrapped around and over the muscles to avoid over-contraction. It is believed that Kinesio tape reduces inflammation as well as pain by enhancing circulation & lymphatic circulation with no limiting the range of motion in an injured region.3. By using this method, stress and discomfort are released from the neurosensory receptors that may cause pain. Additionally, by microscopically raising the skin, the tape encourages lymphatic drainage, which lowers inflammation in the afflicted areas.[3]

One of the following mechanisms of action for Kinesio Taping may be at play: (1) increasing local circulation; (2) reducing exudative substances to lessen local edema; (3) promoting blood circulation via muscle facilitation; (4) delivering a positional stimulation on the skin, muscle, or fascial structures; (5) offering the appropriate afferent input to the CNS; or (6) restricting the ROM of the affected tissues.[4]

It is recommended to use kinesiology taping to treat chronic pain related to musculoskeletal disorders, such as lower back, shoulder, and knee discomfort, which are very usual in the adult general population. A tiny percentage of people may get mild skin irritation from kinesiology taping, but the likelihood and severity of hazards are low. When given the right instructions or training, patients or carers can do kinesiology taping on their

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 5| May 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

own for a cheap cost and without a prescription. Because of this, kinesiology taping is in line with best practices and may be used as a therapeutic alternative for musculoskeletal discomfort. Kinesiology taping is an approach which physical therapists commonly employ as an element of a comprehensive therapy programme for patients. Kinesiology tape helps best when combined with other therapies like manual therapy, according to the American Physical Therapy Association.[5]

METHODOLOGY

Study Design

Search Method and Eligibility Criteria

A thorough an examination of the literature was conducted using PubMed, Google Scholar, Medline, and Pedro as the search engines. According to research that is currently accessible, Kinesio taping can help with pain and functional abilities in orthopaedic diseases. Key words: scope of practice, evidence-based practice, musculoskeletal problems, Kinesio taping, taping techniques, and sham taping. The study only includes literature that discuss the use of KT for musculoskeletal problems; articles that have never been published in English were removed.

Sample Size

The terms Kinesio taping, taping techniques, musculoskeletal diseases, sham taping, scope of practice, and evidence-based practice were used to search a sample size of 32 articles. Twelve of these publications were ultimately selected for examination after papers meeting the inclusion and exclusion criteria were screened.

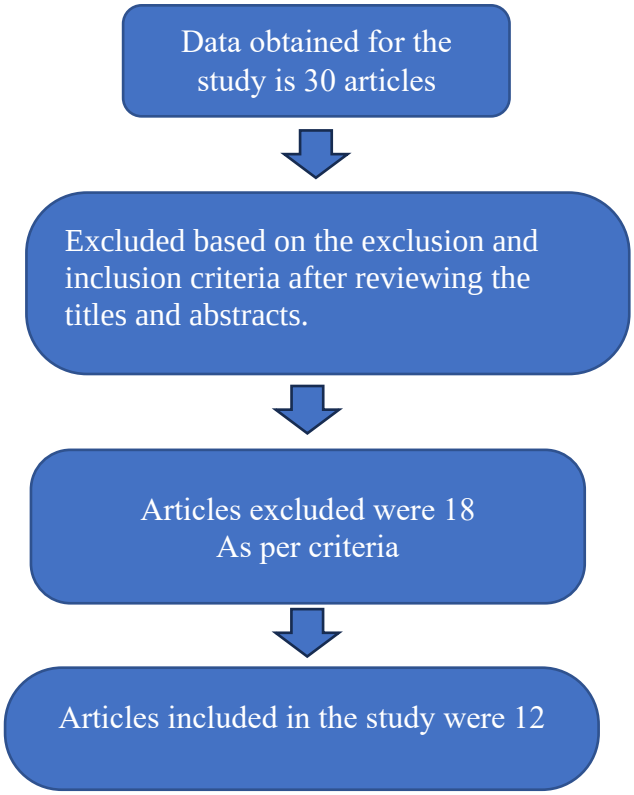
Inclusion Criteria

Articles that describe about Kinesio tape.
Articles that were recently published.
Articles with full text.
Articles that are written in English.

Exclusion Criteria

Articles before 2013.
Articles discussed other than Kinesio taping were excluded.
Articles discussed other than musculoskeletal conditions were excluded.
Articles not containing the relevant discussion were excluded.

Flow chart



ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 5| May 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

LITERATURE REVIEW

s. no	Author \ year	Title	Study method	Study design	Conclusion
1	Anna Lina Rahlf 2019	Kinesio taping improves perception of pain and function of patients with knee osteoarthritis	A randomised sham-controlled trial yielded 141 clinically and radiographically confirmed cases of knee OA. You can use Kinesio tape for three days, fake tape for three days, or no tape at all. The patients' self-reported discomfort, pain, and function were assessed using the WOMAC. The peak voluntary isometric contraction force for the quads femoris, the 10-meter walk test, the Balance Error Grading System, and the knee active ROM were among the other assessments.	Randomized controlled trail	Reported clinical results of pain, stiffness in the joints, and function improved shortly after using Kinesio tape for three days in a row. This highlights the potential for Kinesio taping to be an effective conservative treatment for knee OA symptoms.
2	Majid Farhadi an 2017	Effect of Kinesio taping on pain, range of motion, hand strength, and functional abilities in patients with hand osteoarthritis	A total of 38 individuals with a diagnosis of HOA were chosen for this randomized clinical study inquiry and placed in one of two groups: exercise or Kinesio tape with exercise. Nineteen people in each group participated in the eight-week intervention. The measures for pain quality, upper- extremity functional disabilities, range of motion, and hand grip strength were obtained prior to and following the treatment utilising the DASH questionnaire, goniometer, dynamometer, visual analogue scale, and 2-month follow-up.	Randomized controlled trail	According to the study's findings, Kinesio taping and hand exercises may be able to benefit HOA patients with their discomfort, ROM, hand strength, and functions and capacities in their upper extremities. Additionally, this problem can be treated by combining these two methods at the same time. As per the study's findings, Kinesio taping and hand exercises may be able to benefit HOA patients with their discomfort, ROM, hand strength, and functions and capacities in their upper extremities. Moreover, this illness can be treated by combining these two methods simultaneously.
3	Elaheh Aghapo ur 2017	Effects of Kinesio taping on knee function and pain in athletes with patellofemor al pain syndrome	Fifteen individuals with unilateral PFPS (10 females and 5 males) underwent taped and untaped examinations and comparisons. circumstances. Seventy-five percent of KT's maximum stretch tension was used to tape the vastus medialis oblique of the damaged leg from origin to insertion. Important Outcome Measures The maximal eccentric and concentric maximum torques of the quadriceps were determined at 60 & 180°/s angular velocities using an isokinetic dynamometer. A VAS was used to gauge pain, while step-down and bilateral squats tests were used to assess functional performance.	Comparative study	When KT is applied over VMO, athletes with PFPS can have less pain, better functional performance overall, and increased quadriceps muscular strength. To assess the long-term impacts of this therapeutic technique, additional research is necessary.
4	Ebru Topde mir 2021	The effectiveness of Kinesio taping on playing related pain,	Over the course of a week, a total of 117 people, comprising 82 women who had been professional violinists for at least two years, were randomised to receive either no application (control group), a sham tape application	A randomized controlled clinical trial	The discomfort associated with playing was somewhat improved in violinists who used KT, and after a week of use, left-hand grip strength and the degree of post-performance pain continued. It is also important

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 5| May 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

		function and muscle strength in violin players	(placebo group), or a therapeutic tape therapy (KT group). Measures of the result: The primary outcome was the DASH in One Week. The secondary outcomes were the VAS, grip and pinch strength, and the Purdue Pegboard Test. The outcome measures were carried out three times: at baseline, immediately following the intervention, and one week later (follow-up). Participants were asked to perform "Violin Concerto (Rieding, Oskar)"; grip and pinch strength, as well as pre & post-performance discomfort, were measured.		to consider the possible post-performance impacts of the tape on grip strength and discomfort intensity, as KT may be utilised during the performance. T-application. It is also important to consider the possible post-performance impacts of the tape on grip strength and discomfort intensity, as KT may be utilised during the performance.
5	Edwin Choon Wyn Lim 2014	Kinesio taping in musculoskeletal pain and disability that lasts for more than 4 weeks	There were 606 articles found in the first electronic database search; 29 of them were chosen for closer examination, and 17 of the qualifying papers were kept for this study. demonstrates how papers are reviewed and provides an explanation for any articles that are excluded. A more thorough review of these papers revealed one additional paper26, which was also added.	A systematic review with meta-analysis	This review demonstrates that KT is a better pain management strategy than minimum intervention. The evidence that is currently available refutes the assertion that, in terms of minimising disability, KT is more effective than minimal or alternative forms of intervention. All things considered; our data suggest that KT may be useful in lowering pain when combined with traditional therapy.
6	Saime Ay 2017	The effectiveness of Kinesio taping on pain and disability in cervical myofascial pain syndrome	A double-blind and randomised, placebo-controlled approach was employed in this investigation. Eleven MPS participants were divided into two distinct groups at random. The first group had Kinesio Taping, whereas the second group had five days of sham taping spaced three days apart throughout a fifteen-day period. Also, each patient received a regimen of neck exercises. Neck flexibility, ROM, discomfort, pressured pain limit, and impairment were used to evaluate the patients. An algometer was used to assess the pressure pain threshold, goniometry was used to test the active neck ROM, and the VAS was used to quantify the pain. The handicap was assessed using the Neck Pain Disability Index Disability. Measurements were obtained earlier and right after the procedure.	Experimental study	This study shows that Kinesio Taping does not affect neck range of motion; instead, it gradually increases discomfort as well as painful tolerance. Because of this, Kinesio taping may be beneficial for those with myofascial pain syndrome patients as a substitute for traditional treatment.
7	Cho H-y 2015	Kinesio taping improves pain, range of motion, and proprioception in older patients with	Two groups, one for KT and the other for placebo-KT, were randomly assigned to forty-six elderly participants suffering from osteoarthritis. Participants had their quads taped with KT application (tension) or without (placebo-KT application) in the two groups. An algometer was used to quantify the PPTs in the quads and tibialis anterior	Experimental study	This study shown that applying KT with the proper tension to the quadriceps effectively improves AROM and proprioception in individuals with osteoarthritis and lowers pain of all sorts. For this reason, KT may be a useful intervention to aid clinic patients with osteoarthritis with their proprioception, AROM, and pain.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 5| May 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

		knee osteoarthritis	muscles both before and after the intervention. A VAS was used to record the level of discomfort both at rest and during walking. AROM without pain and proprioception were also assessed.		
8	Scott R. Freedman 2014	Short term effects of patellar Kinesio taping on pain and functions in patients with patellofemoral pain syndrome	This study involved 49 participants aged 12-24 who underwent sham and experimental patellar Kinesio taping after completing four functional tasks and a single-leg triple jump test. The treatment outcome was analysed using paired t tests and a 2-way, 2-by-2 analysis of variance to investigate the relationship between tape condition and side for STJT scores.	Experimental study	Comparing patellar Kinesio taping to a sham application, patients with PFPS experienced an instant and substantial improvement in discomfort and single-leg hop performance. But STJT score improvement fell short of the minimum measurable change value, indicating that KT's therapeutic efficacy in improving the single-leg hop the current investigation does not establish function.
9	Amazan Oğuz 2021	Effects of exercise training alone and in combination on with Kinesio taping on pain, functional ability and biomarkers related to the cartilage metabolism in knee osteoarthritis	Twenty-two female patients with osteoarthritis (OA) in total were randomly assigned to one of two groups: exercise training alone or in conjunction with Kinesio taping. The ET patients had six weeks of fitness training. Patients in the ET + KT group used Kinesio tape in addition to their exercise regimen for a duration of six weeks. Before and after the interventions, each group had a twenty-minute walk. The WOMAC and VAS were used, respectively, to measure the patients' functional status and pain at rest prior to and during the intervention. Blood samples were obtained prior to, during, and right after the physical activity in order to measure the levels of COMP, the MMP-1, and the MMP-3.	Comparative study	Pain and physical function were improved by physical activity either by alone or in conjunction with KT taping; COMP, MMP-1, and MMP-3 values did not change.
10	Marc Campolo 2013	A comparison of two taping techniques Kinesio taping and McConnell and their effect on anterior knee pain during functional activities	Each participant was evaluated on two functional activities: climbing stairs under three circumstances (i.e., 1) no tape, 2) MT, and 3) KT) and executing a squat lift with a weighted box (10% of the subject's body weight plus the weight of the box, or 8.5 pounds). To quantify pain, the NPRS was employed, offering a range of 0 to 10.	Comparative study	According to the study's findings, discomfort during stair climbing activities may be effectively decreased by using both the KT and the MT.
11	Peilin Deng 2020	Effect of Kinesio taping on hemiplegic shoulder pain	We looked at English- or Chinese-language randomised controlled studies that treated hemiplegic patients' sore shoulders with Kinesio taping. Two reviewers independently analysed the publications; they also gathered the data, using the Cochrane's risk of bias tool to assess the risk of bias, and	A systematic review and meta-analysis of randomized controlled trial	According to this meta-analysis, Kinesio taping improved Upper Body Motor Functioning and Daily Activities, reduced shoulder subluxation, and improved patients' shoulder discomfort following intervention in hemiplegic patients. This benefit cannot be explained by

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 5| May 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

			scored the level of methodology using the PEDro scale. The discomfort, upper limb movement, the degree of shoulder subluxation, and daily living activities were the results after the intervention.		a placebo effect alone. Additionally, it was linked to people with persistent stroke experiencing less discomfort.
12	Liane de Brito Macedo 2019	Kinesio taping reduces pain and improves disability in low back pain patients	Evaluations were completed by 108 women with persistent non-specific low back pain prior to, throughout the three-day period after, and ten days following the intervention. Intervention Courses Following randomization, participants were divided into four groups: the KT with tension group applied KT with tension in the same area; the Micropore group taped the muscles of the erector spinae with Micropore tape; and the control group got no treatment at all. important metrics for performance the main outcome, pain perception, was measured using a NPRS. The Roland Morris Disability questionnaire, strength (dynamometry), trunk range of motion (inclinometry), and electromyographic amplitude (electromyography) were the secondary results.	Randomised controlled trial	Pain is reduced three days after using KT, whether or not tension is present. It also helps individuals with LBP who have it administered with tension; improvement is seen after three and ten days.

DISCUSSION

Anna Lina Rahlf et al 2019 In comparison to a sham tape or no intervention, this study demonstrated that wearing a Kinesio tape for three consecutive days improves individuals with knee osteoarthritis' (OA) self-reported sense of pain, stiffness in their joints, and physical function. Although the exact mechanism underlying these benefits is yet unknown, it is thought that the flexibility of the tape and its application under strain cause the skin to mobilise during movements and enhance blood and lymph circulation, all of which have a direct impact on the feeling of pain. The study found that the Kinesio tape group experienced a decreased impression of stiffness, which might be attributed to the stimulation of cutaneous mechanoreceptors. This could potentially alter the relationship between cutaneous mechanoreceptors and proprioception. It is necessary to rigorously examine the clinical significance of WOMAC alterations since they are only considered clinically significant when the difference exceeds 12% of the baseline measurement or 6% of the highest value. For patients with knee OA, functional exercises combined with applied Kinesio tape are an effective therapy, especially during the transition phase, since it improves pain perception right away.[6] This investigation concluded that Kinesio Taping over the lumbar spine for one week dramatically reduced pain and impairment in a randomised study of sixty persons with non-specific persistent low back pain. After one week, the experimental group improved by 4 points on the Oswestry Disability Index and 1.2 points on the Roland-Morris score; however, these improvements did not hold true after four weeks. Following treatment, the experimental group also reported a higher immediate reduction in pain compared to the control group; this difference persisted for four weeks. Furthermore, after one week and four weeks, the trunk muscle endurance showed a significant increase. There was no discernible impact on other outcomes. The study found that in patients with persistent, non-specific low back pain, Kinesio Taping decreased pain and impairment.[18] Mostafavifar M et al 2012 Kinesio Taping (KT) is a therapeutic procedure that decreases pain, inflammation, and recovery times by enhancing blood and lymphatic circulation without limiting range of motion. The use of KT after musculoskeletal injuries is examined in this systematic study, with an emphasis on pain, function, and return to play. According to theory, KT reduces pain by microscopically elevating the skin, enhancing blood and lymph flow, and releasing pressure on and irritating neurosensory receptors. It has been found to relieve myofascial pain and meralgia paresthetica, two types of musculoskeletal discomfort that are not related to injuries. Supporting muscles without limiting movement improves function. Research indicates that while patellofemoral pain syndrome patients are not affected, healthy individuals may benefit from KT in terms of improved muscular effort and functional performance. It's still unclear, though, if KT is helpful as an adjuvant treatment to enhance function. There is no evidence that performance or return to play shortens the recovery period after a musculoskeletal injury. Although there is no conclusive evidence to support a link between the administration of KT and a faster return to play, the patient or athlete may believe that using KT enables them to do so. The search methodology, the restriction to English-language publications, and the lack of a precise criteria for musculoskeletal injury are some of the systematic review's limitations. The perceived benefits of KT are a major influence

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 5| May 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

in its use, and its advantages should be evaluated from a variety of angles.[1]

CONCLUSION

The papers that were previously discussed demonstrated that Kinesio taping significantly improves pain and functional capacities in a variety of musculoskeletal disorders. When treating the majority of musculoskeletal disorders, the therapist is advised to do Kinesio taping alone or combine exercises with the Kinesio taping techniques.

REFERENCES

1. *Mostafavifar M, Wertz J, Borchers J. A systematic review of the effectiveness of kinesio taping for musculoskeletal injury. The Physician and sportsmedicine. 2012 Nov 1;40(4):33-40.*
2. *Kinesio Taping Method. Kinesio UK website. http://kinesiotaping.com/ kinesio/method.html. Accessed November 7, 2011*
3. *Thelen MD, Dauber JA, Stoneman PD. The clinical efficacy of kinesio tape for shoulder pain: a randomized, double-blinded, clinical trial. journal of orthopaedic & sports physical therapy. 2008 Jul;38(7):389-95.*
4. *GonzáLez-Iglesias J, Fernández-de-Las-Peñas C, Cleland J, Huijbregts P, Gutiérrez-Vega MD. Short-term effects of cervical kinesio taping on pain and cervical range of motion in patients with acute whiplash injury: a randomized clinical trial. Journal of orthopaedic & sports physical therapy. 2009 Jul;39(7):515-21.*
5. *Banerjee G, Johnson MI. Should kinesiology taping be used to manage pain in musculoskeletal disorders? An evidence synthesis from systematic reviews. Physiotherapy-The Journal of Indian Association of Physiotherapists. 2020 Jan 1;14(1):17-25.*
6. *Rahlf AL, Braumann KM, Zech A. Kinesio taping improves perceptions of pain and function of patients with knee osteoarthritis: a randomized, controlled trial. Journal of sport rehabilitation. 2019 Jul 1;28(5).*
7. *de Brito Macedo L, Richards J, Borges DT, Melo SA, Brasileiro JS. Kinesio taping reduces pain and improves disability in low back pain patients: a randomised controlled trial. Physiotherapy. 2019 Mar 1;105(1):65-75.*
8. *Farhadian M, Morovati Z, Shamsoddini A. Effect of Kinesio taping on pain, range of motion, hand strength, and functional abilities in patients with hand osteoarthritis: a pilot randomized clinical trial. Archives of Bone and Joint Surgery. 2019 Nov;7(6):551.*
9. *Aghapour E, Kamali F, Sinaei E. Effects of Kinesio Taping® on knee function and pain in athletes with patellofemoral pain syndrome. Journal of bodywork and movement therapies. 2017 Oct 1;21(4):835-9.*
10. *Topdemir E, Birinci T, Taşkıran H, Mutlu EK. The effectiveness of Kinesio taping on playing-related pain, function and muscle strength in violin players: A randomized controlled clinical trial. Physical Therapy in Sport. 2021 Nov 1; 52:121-31.*
11. *Ay S, Konak HE, Evcik D, Kibar S. The effectiveness of Kinesio Taping on pain and disability in cervical myofascial pain syndrome. Revista brasileira de reumatologia. 2017 Mar;57:93-9.*
12. *Lim EC, Tay MG. Kinesio taping in musculoskeletal pain and disability that lasts for more than 4 weeks: is it time to peel off the tape and throw it out with the sweat? A systematic review with meta-analysis focused on pain and also methods of tape application. British journal of sports medicine. 2015 Dec 1;49(24):1558-66.*
13. *Cho HY, Kim EH, Kim J, Yoon YW. Kinesio taping improves pain, range of motion, and proprioception in older patients with knee osteoarthritis: a randomized controlled trial. American journal of physical medicine & rehabilitation. 2015 Mar 1;94(3):192-200.*
14. *Freedman SR, Brody LT, Rosenthal M, Wise JC. Short-term effects of patellar Kinesio taping on pain and hop function in patients with patellofemoral pain syndrome. Sports health. 2014 Jul;6(4):294-300.*
15. *Oğuz R, Belviranlı M, Okudan N. Effects of exercise training alone and in combination with Kinesio taping on pain, functionality, and biomarkers related to the cartilage metabolism in knee osteoarthritis. Cartilage. 2021 Dec;13(1_suppl):1791S-800S.*
16. *Campolo M, Babu J, Dmochowska K, Scariah S, Varughese J. A comparison of two taping techniques (kinesio and mcconnell) and their effect on anterior knee pain during functional activities. International journal of sports physical therapy. 2013 Apr;8(2):105.*
17. *Deng P, Zhao Z, Zhang S, Xiao T, Li Y. Effect of kinesio taping on hemiplegic shoulder pain: a systematic review and meta-analysis of randomized controlled trials. Clinical Rehabilitation. 2021 Mar;35(3):317-31.*
18. *Castro-Sánchez AM, Lara-Palomo IC, Matarán-Peñarrocha GA, Fernández-Sánchez M, Sánchez-Labraca N, Arroyo-Morales M. Kinesio Taping reduces disability and pain slightly in chronic non-specific low back pain: a randomised trial. Journal of physiotherapy. 2012 Jun 1;58(2):89-95.*
19. *Ghozy S, Dung NM, Morra ME, Morsy S, Elsayed GG, Tran L, Abbas AS, Loc TT, Hieu TH, Dung TC, Huy NT. Efficacy of kinesio taping in treatment of shoulder pain and disability: a systematic review and meta-analysis of randomised controlled trials. Physiotherapy. 2020 Jun 1; 107:176-88.*
20. *Ay S, Konak HE, Evcik D, Kibar S. The effectiveness of Kinesio Taping on pain and disability in cervical myofascial pain syndrome. Revista brasileira de reumatologia. 2017 Mar;57:93-9.*
21. *Farhadian M, Morovati Z, Shamsoddini A. Effect of Kinesio taping on pain, range of motion, hand strength, and functional abilities in patients with hand osteoarthritis: a pilot randomized clinical trial. Archives of Bone and Joint Surgery. 2019 Nov;7(6):551.*