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Effects of dry cupping and kinesio taping on cervical pain, muscle flexibility and range of motion on university student

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Abstract

The objective of the study is to examine the short- and long-term effects of Dry cupping against kinesio tape on cervical pain and range of motion. Cervical pain and limited range of motion are two common issues that can have a significant impact on a person's quality of life. While dry cupping uses self-myofascial release, kinesio taping reduces pain-causing neck motion. The study aimed to assess the effectiveness of dry cupping against kinesio taping in relieving neck pain and improving range of motion. 40 people with cervical discomfort were randomly assigned to one of two groups: dry cupping or kinesio taping. During the four-week intervention phase, three sessions per week were held. Prior to the intervention, cervical discomfort severity was assessed using a visual analogue scale (VAS) and the cervical range of motion was measured using goniometry. Immediate post-intervention and long-term follow-up assessments were conducted at the end of the four-week intervention period and four weeks after the intervention's conclusion, respectively. Finally, both dry cupping and kinesio taping can be used to relieve neck pain and increase range of motion. Dry cupping, on the other hand, outperformed kinesio taping in both the short and long term. These findings suggest that dry cupping may be a more effective treatment for those who have chronic neck pain and limited range of motion. More study is needed to better understand the underlying mechanisms of these therapies and to maximise their usage in the treatment of cervical discomfort.

Keywords: Neck pain, dry cupping, kinesio taping

Introduction

Neck pain is defined as the presence of musculoskeletal pain in the posterior region of the neck, above the shoulders, or in the upper dorsal area. It is estimated that 22–70% of the population will experience at least one episode of cervical pain at some point in their lives. The annual incidence in adults is 14.6%, and women are more vulnerable than men. The main complaints of individuals with neck pain include reduced range of motion and difficulty in completing daily tasks in addition, it can generate postural changes that even interfere with diaphragmatic excursion. Neck pain can be classified as acute, when there is pain for less than 6 weeks; sub-acute, below 3 months; and chronic, above 6 months. Neck pain can be considered non-specific when there is no primary disease, such as trauma, infection, inflammatory disorder, neurological or systemic disease.

Cupping has many definitions in the practise of traditional and alternative medicine from various cultures; nevertheless, one of its most prominent uses is the elimination of toxic chemicals from the body (detoxification) by placing suction cups on painful body regions to create negative pressure. Cupping is known in Arabic as Hijama, which literally means "to shrink in size" and, more broadly, "to restore the body's natural status.

Kinesio taping (KT) is increasingly being used to treat musculoskeletal disorders and sports injuries. Kase created this technique in Japan, and it has recently become quite popular in pain therapy. Kinesio Tape is a thin, light, elastic material that does not limit joint movement. It has been shown to be useful in reducing pain and muscular spasms, increasing range of motion (ROM), enhancing local blood and lymph circulations, minimising edema, strengthening weakening muscles, controlling joint instability, and maintaining postural kinesio tape is a well-liked technique for treating athletes with mechanical neck pain.

To better understand how this tape can improve cervical proprioception, actual data must be gathered. Since there is currently no information on the proprioceptive effects of Kinesio tape in athletes with neck pain, this study is urgently needed. In order to examine the effects of Kinesio taping treatment with placebo application on cervical proprioception in athletes with mechanical neck pain, this study is being conducted.

Methodology

Subjects: For the purpose of the study forty university students were selected purposively from RIMT University Mandi Gobindgarh Punjab, India as the subject. They were divided into two- experimental group and twenty in each group. Group A is Kinesio taping therap and group B was given dry cupping

Variable: Neck pain was selected as the variable for the study.

Test and Criterion Measure: To measure the range of motion severity of neck pain of the two groups of the university students. For this Goniometer, cophagan scale and visual Analogue scale are used to assess the pain and range of motion.



Table 3: Shows the comparison between groups of dry cupping and kinesio taping on flexibility

Unpaired T Test	Comparison of Cupping and Taping			
	Pre		Post	
	Group A cupping	Group B Taping Therapy	Group A cupping	Group B Taping Therapy
Mean	78.27	86.97	81.77	89.96
S.D.	7.587	9.508	8.794	8.761
Number	20	20	20	20
Maximum	91.79	108.70	94.30	109.90
Minimum	64.20	72.97	66.80	76.40
Range	27.59	35.73	27.50	33.50
Mean Difference	8.70		8.19	
Unpaired T Test	3.198		2.952	
P value	0.0028		0.0054	
Table Value at 0.05	2.02		2.02	
Result	Significant		Significant	

Discussion

In this research done by Duane T. Lowe, 2017 and concluded that Suction by cupping would have an immediate, direct impact on the area, increasing local lymphatic and blood flow. Local myofascial pain could benefit from an increase in lymphatic and blood flow locally. It is reasonable to assume that the localised ecchymosis caused by cupping therapy will have an anti-inflammatory, anti-oxidant, and antinociceptive effect on the local tissue. This will eventually lead to a decrease in any local inflammation, an increase in

Collection of Data

Immediately after a match, Pre- test data were collected from the two groups. Both the techniques were then administered to the groups divided and immediate and long term effect were monitored.

Statistical Analysis

To determine the effect of both procedures, neck pain was assessed by visual analouge scale (VAS) and ROM was measured with a Goniometer. A descriptive statistics unpaired T test was used to examine the difference and determine the significant outcome.

Result

Data was meaningfully assorted through calculation of mean and standard deviation. The factor of age was examined first to determine their potential effects on the outcomes of the study. The age factor was found to be non-significant statistically as the subjects were homogeneous with less variability among the characteristics.

Table 1: Shows the pre and post paired t test mean and standard deviation of pain after the application of cupping therapy

Paired 't' test	Group A (cupping therapy)	
	Pain	
	Pre	Post
Mean	2.42	2.07
S.D	0.252	0.282
Result	S	

Table 2: Shows the pre and post paired t test mean and standard deviation of pain after the application of kinesio taping

Paired 't' test	Group B (Taping Therapy)	
	Pain	
	PRE	POST
Mean	2.43	2.07
S.D.	0.198	0.176
Result	S	

angiogenesis and mitochondrial biogenesis, as well as a decrease in local pain. Depending on the location and timing of the cupping, this can result in faster healing times for wounds, sprains, or other types of injuries. This could be the mechanism underlying the reduced perception of pain that has been shown in clinical studies evaluating the effects of cupping therapy on musculoskeletal pain.

Conclusion

Within the limitations of the present study and based on the

findings it was concluded that the both dry cupping and Kinesio taping are simple and practical techniques used to increase the Range of Motion and decrease the pain of neck. The area of cervical spine has been benefitted by dry cupping. Neck pain appears to be significantly reduced after five dry cupping sessions. Not only did objective measurements improve, but there were also noticeable differences in mechanical pain sensitivity between the two groups, indicating that cupping may have an impact on how functional pain is processed as compared to Kinesio taping application.

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