Rehabilitation Of Sports Injuries (Sciatic Pain) Using Yoga Postures

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ABSTRACT

The Purpose of this study was to find out the effect of yoga therapy on the sports injuries. The aim of this study was find out the "Rehabilitation of Sports Injuries (sciatic pain) using Yoga Therapy Postures". The present research whole population a total number of 22 male players were selected on the basis of purposively method of sampling technique and it was a single group experimental study. The duration of yoga therapy was six weeks with two follow up sessions which was given six days in a week. Pre, mid and post test conducted on the both the group & data was analyzed by independent sample t-test. The results showed that the significant impact of pre and post -tests of subjects on the pain intensity. The effect of yoga therapy on rehabilitation of sciatic pain of players was found considerable.

Keywords : sports injury, yoga therapy, sciatic pain

Introduction:

Sports injuries result from acute trauma or repetitive stress associated with athletic activities. The most common cause of sports injuries is overuse, which is generally due to faulty training methods. The exerciser does not allow for adequate recovery after a workout or does not stop exercising when pain develops. Every time muscles are stressed by an intensive workout. Only uninjured and adequately nourished fibers function properly, closely spaced, intensive workouts eventually require comparable work from fewer healthy fibers, increasing the likelihood of injury. Stopping exercise at the first sign of pain, which precedes most wear-and-tear injuries, limits the injury to these fibers, resulting in a quicker recovery. However, continuing to exercise with pain tears more fibers, extending the damage and delaying recovery.

Yoga practices are recommended to patients according to their ailment and their physical and emotional condition. If a doctor's diagnosis is wrong or the dosage is inappropriate, the treatment can actually harm the patient. Similarly, yoga practices that are not suited to an individual's requirements can adversely affect his or her health. One should follow the recommended sequence of yoga practices carefully. In the case of serious or congenital disabilities, yoga practices may not affect a full recovery, but in many cases can alleviate some of the suffering associated with the condition . Another benefit of yoga therapy is that it has been known to raise the threshold of pain and endurance. This only happens, however, if the recommended yoga postures are practiced with patience and dedication. Yoga calms the brain and sooths the nerves, reducing the apprehension of pain, which is, in many cases, as damaging as pain itself. Medication accelerates the heeling process, but is not a cure itself. Nature alone is the ultimate cure. The belief underlying yoga therapy is to enable the human system to function as efficiently, effectively, and naturally as it can. This natural process, however, operates at its own rhythm and pace, and the pace may sometimes slow. The aim is not simply to cure the specific symptom, but to target the cause.

The practices of Yoga also work as therapy to remove the structural deformities of the body. It also strengthens muscles, ligaments and helps to brings in the joints. With the help of yoga therapy disorders like sleep disk, back pain, heart diseases, diabetes and other associated health hazards are manage . Unfortunately, no report is available so far in managing sports injuries through yoga therapy. This, in turn, suggests that there is need for this present investigation for assessing the effect of yoga therapy on the sports injuries.

Objectives of the Study

The major objectives of this investigation are as follows:

- To assess only sciatic pain complaints (the players suffer due to sports injuries) with the help of X-rays and MRI (magnetic resonance imaging).
- To design and conduct yoga therapy program of Sun-Jeevan method for rehabilitation of the sciatic pain of the injured players.
- To observe the implementation effect of the yoga therapy program on rehabilitation of the sciatic pain of the injured players for a particular duration along with considerable follow ups.

[1] *Ibid*., B.K.S. Iyengar, pp. 27-29.
[2] Kholhatkar& S. Randive. *Yoga of today,* (Pune: Sunjeevan Foundation, 2008).

Methodology

The present study has been designed for Rehabilitation of Sports injuries using yogic postures as modified by Sun-Jeevan method. As this is a survey cum experimental study, standard procedure was followed to conduct this project. The researcher followed step-wise method to conduct the survey cum experimental study. The detail procedure is presented below.

All the male sports persons, age ranged between 20 to 30 yrs., who played/ playing at state, national and international level of sports competitions were the subject for survey.

Method of Survey

Survey study was conducted by administering a Rating scale (custom made) on 334 players to assess the nature and types of sports injuries - they suffer. The rating scale was prepared and developed considering different literature on sports injury, which as finalized in consultation with the experts of physical and sports. This Rating scale could help to assess the number (percentage) of sportsmen possesses sports injuries. On the basis of the survey study, it will be clearly evident that the percentage of the players suffers from pain because of their type of sports injuries. Further, number of players identified who suffers from sciatic pain. Minimum 26 male sportsmen, age ranged from 20-35 yrs; from Pune city was chosen using purposive sampling technique.

Experimental Design:

The present study was conducted by considering ***a single group experimental design*** because the treatment part of the subjects was changed as per the structure of the injury. The design of the experiment is presented below.

O1 – X1- O2 – X2 -- O3 – X3 – O4 – X4 – O5

Where

O1	-	Pre test
O2, O3 & O4	-	Mid test
O5	-	Post test
X1	-	Self control (blank period)
X2	-	Treatment/ Training intervention

X3, X4 - Follow ups

The diagrammatic presentation of experimental design has been explained, briefly, below:

- After assessment of the variables in pretest (O1) is over, there was a blank period of 6 weeks - during which the subjects continueed their lifestyle and medication that they were following previously. This is called as self-controlled period. After completion of this self-control/ blank period, all the variables were again tested (i.e., Mid test O2).
- Immediately the Mid test O2 is over, the subjects underwent a specified training of Sun-Jeevan method daily 45 min. / 1 hr. in the morning excluding Sundays and holidays for a total period of 6 weeks. The week-wise training schedule of Sun-Jeevan method for the period of 6 weeks has been explicitly mentioned in third chapter of the thesis. However, the treatment principles were as follows:
    - Awareness of space
    - Fractional dilution of density
    - Memory programming
    - Biofeedback
    - Periphery to centers
    - Proper alignment of bones and muscles
    - Principles of gravity and antigravity
    - Modified stretch reflex

    Sun-Jeevan method works on the principles of 5'R theory. These are as follows:
    - Resolve: - Resolve and separate the disease / deformity from the body.
    - Restore: - Physiologically to restore the state. Maintain the present state.
    - Reverse: - Start the process to stop and reverse the state towards natural state.
    - Rejuvenate: - Refresh, maintain the normal state. Remove the disease or destroy it.
    - Regeneration: - Regenerate new cells with feeded knowledge.

This training of Sun-Jeevan method for the period of 6 weeks is called as period of experimental intervention (Treatment X2).

- Just like pre test (O1) or mid test (O2), the subjects were tested again (Mid test O3) with the same variables. This ensured the completion of the main part of the experiment.
- The experiment was continued further for two follow-up periods of 6 weeks each (i.e., X3 and X4), which were repeatedly tested with the same variables (O4 and O5) without any intervention. This, in fact, helped to record the follow up effects of the Sun-Jeevan method.

Variables and Tools used

- A standard questionnaire was administered for evaluation of intensity of pain that appears due to occurred sports injury.
- Medical diagnosis of injuries was assessed by standard X- ray and MRI (magnetic resonance imaging) method.
- Reports of subjective experience, pain intensity questionnaire, X-ray and MRI could confirm the rehabilitation status of the sportsmen from sports injuries.

Statistical Measures:

The obtained data were processed primarily for descriptive statistics. Further, percentage-wise analysis was done for symptoms of low back pain, X-ray and MRI. Considering the experimental design, Repeated Measures ANOVA followed by Scheffe's post hoc test was employed to assess the efficacy of Sun-Jeevan training intervention towards rehabilitation of sports injury of the selected players.

Major Findings:

The percentagewise results of sciatic pain in leg have been presented in Table 13.62% of the players exhibited sciatic pain in leg (observation-1). Whereas during mid-test -1 (observation-2) the percentage of suffering remained same. Appearance of this results indicated that the blank period has no effect on reducing the symptom of sciatic pain in leg among the injured players. • After first session of six-week yoga therapy (posttest observation-3) there were no changes in the symptoms, in fact, all the players showed symptom of sciatic pain in leg. Thus, the impact of first session of yoga therapy was not effective. Therefore, these injured players were exposed for second session of yoga therapy for a period of next six weeks. • The results of second six-week yoga therapy (obseversation-4) showed that 9.08% of players still had symptom of sciatic pain in legs. Finally, during 2nd follow up 100% of players recovered from the symptom of sciatic pain in leg (observation-5). The results indicate that at the end of 3rd treatment all the players recovered from the sciatic pain.

Conclusion

On the basis of the above findings, this investigation warrants the following conclusion:

- Although yoga therapy intervention for a period of 6 weeks is good enough to initiate the recovery of the symptoms of low back pain among the players with sports injury, however, significant recovery is evident after second follow-ups.
- Yoga therapy helped to initiate in managing pain intensity. However, significant impact was evident after second follow-ups.
- Impact of yoga therapy seems to be slow and steady in recovering players' symptoms on low back pain, medically diagnostic measures on low back pain and intensity of pain.

Table 1 : *Players with Sciatic Pain in Leg*

Treatment	Training Period	No. of Subjects	% Recovery
No treatment	Pre test	22	13.62%
Blank Period	1st 6 weeks to 2nd 6 weeks	22	13.62%
1st treatment	2nd 6 weeks to 3rd 6 weeks	22	13.62%
2nd treatment	3rd 6 weeks to 4th 6 weeks	22	9.08%
t 3rd treatment	4th 6 weeks to 5th 6 weeks	22	0.00%

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