Restless legs syndrome (RLS) is a disorder in which you have an uncontrolled need to move your legs, generally in response to an unpleasant feeling. It usually happens in the evening or at night, while you're seated or lying down. Moving briefly alleviates the uncomfortable sensation [1].

**INTRODUCTION**

Restless legs syndrome (RLS) is a disorder in which you have an uncontrolled need to move your legs, generally in response to an unpleasant feeling. It usually happens in the evening or at night, while you’re seated or lying down. Moving briefly alleviates the uncomfortable sensation [1].

**ARTICLE INFO**

**Key Words:** RLS; Restless legs syndrome; IRLSSG; Assess the Severity of Restless Legs Syndrome.


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**ABSTRACT**

Restless Legs Syndrome (RLS) is a disorder in which you have an uncontrolled need to move your legs, generally in response to an unpleasant feeling. It usually happens in the evening or at night, while you're seated or lying down. Moving briefly alleviates the uncomfortable sensation [1]. Cramps are excruciating sensations brought about by extraordinary compulsory compressions of skeletal muscles, mainly inside the calf, once in a while enduring from various seconds to numerous minutes [1]. A leg cramp might be an agony that comes from a leg muscle. Leg cramps ( regularly alluded to as night cramps) in some cases happen most normally in the evening. Night leg cramps are compulsory excruciating contractions of skeletal muscles stir inside the calf and bottoms of the feet [2]. They will occur with no acknowledgeable cause, and are then said as common calf cramps [3]. However, squeezes are primarily problem, they will beat indication of elective sorts of harming, Ekbom condition or jerkiness. It’s an indication that occasionally occurs in an extremely lower leg muscle, underneath and
behind a knee. Albeit by and large they don’t appear to be destructive and resolve just in certain occurrences they need an all-inclusive period and may end in serious agony, upset rest and fabricate somebody feel restless [4]. Especially rest and treat somebody feel restless. The legs (and arms) with or while not horrendous impressions that is caused by rest, alleviated by development, and more awful inside the evening or in the night than for the duration of the day (fundamental measures). Target information like inordinate occasional leg developments, positive reaction to dopaminergic medicine, and case history of RLS or discoveries of a neurologic assessment can’t substitute any of the fundamental rules. Symptomatic standards embrace case history, the presence of occasional leg developments (PLM) once conscious or snoozing, and a positive reaction to dopaminergic treatment [17].

**METHODS**

It was a randomized controlled trial, conducted in physiotherapy department of Ashraf Naseer Medical Center and Zeenat Javed Medical Complex, Multan. The study was completed in a period of six months. Sample size was 30, calculated by Epitool, by addition of 20% attrition rate total sample size was 34. Convenient sampling was done. Obese patients having age above 20 yrs, both genders, have severity of RLS 3 nights a week or more, patients with moderate to severe severity according to the scores of IRLSSG scale and Score above 11 and BMI above 25 were included. Signs of serious pathology (e.g., malignancy, inflammatory disorder, Infection) or another sleep disorders other than RLS were excluded.

**Data Collection Tool:**

**Body mass index (BMI)**

BMI indicated obese and obesity with relatively low sensitivity (66–82%), but high specificity (90–92%) [16].

**Exercise recording form**

Personal characteristics of adolescents were connected with validity: sex (SED: P = 0.007; LPA: P = 0.001; VPA: P = 0.009) and setting (LPA: P = 0.000; MPA: P = 0.047). For LPA, reliability was related to the ease of completing the physical activity report (low convenience: P = 0.014; high convenience: P = 0.045) [17]. The concept validity and internal consistency reliability of the IRLS total score, severity, and severity effect subscales were satisfactory (alpha=0.81, 0.80, and 0.76, respectively), and concurrent validity (r=−0.68, −0.52, −0.70, respectively) [18].

**Data Collection Procedure:**

**Screening:** Participants who fullfilled the above-mentioned criteria were enrolled for this particular study. Informed written consent were taken by the participants and were assigned to one of two groups very randomly. The treatment protocol applied to a single participant was for 8 weeks with 5 sessions per week. According to mentioned inclusion and exclusion criteria, participants were recruited and requested to take part in the study. Participants filled written informed consent which was in both English and Urdu. Treatment group was assigned to...
RESULTS

Each participant using chit pick box method. 15 chits were marked as Group A and 15 chits were marked as Group B. Each patient was requested to draw a chit from box. Patient was allocated to respective group whenever a chit was drawn, the study was single blinded in which patients were managed to be masked of treatment options available for other groups. Clinicians and assessors could not be blinded due to apparently very different procedures of two groups. Baseline data was collected before assigning the participants in two groups and follow up was done after 12 days. Data was collected with the help of International restless legs syndrome study group scale (IRLSSG).

Intervention:

Group A: Prior to the treatment, baseline treatment was given to the patients, followed by TENS therapy. Afterwards, the patients performed stretching exercises in each plane for 5 times. Patients were in seated position with their feet flat on the floor and shoulder relaxed. Then, isometric stretching was performed. Muscles were stretched for 7-15 seconds for 3-5 repetitions and then relaxed for at least 20 seconds.

Group B: Prior to the treatment, baseline treatment was given to the patients. Patients were in seated position with their feet flat on the floor and shoulders relaxed. Then, static stretching was performed. Therapist asked the patient to move cervical muscles until they could go, within pain free range, then retained that position for 20 to 45 seconds. Patient repeated static stretches twice to thrice times each.

RESULTS

Participants were evaluated using inclusion and exclusion criteria. Participants who satisfied the inclusion criteria numbered 30. 30 individuals were randomly assigned to either the interventional (TENS + stretching) or control groups (stretching). There were no subjects dropped from either Group (Table 1,2). On the basis of mean standard deviation, baseline values of socio-demographic data from both groups were comparable. The table detailed the comparison of socio-demographic variables such as participants’ age, weight, and height, as well as their Body Mass Index (BMI) across both groups. The average age of participants in both groups was 40.09±7.4 years. In both groups, the average height was 62.72.54m2 and the average weight was 86.13±3.38kg. Body Mass Index (BMI) was 36.973.98 kg/m2 in both groups (Table 1).

Between groups (Parametric test)

Independent t-test Comparison on Baseline value

Independent t-test was applied on baseline group 1 (interventional group) is compared with group 2 (control group) to compare Pre-treatment values. IRLSSG score mean in group 1 was 24.47±6.79 and in group 2 was 24.27±5.18 and p value was 0.07 (Table 3). Independent t-test was applied on baseline group 1 (interventional group) is compared with group 2 (control group) to compare Post-treatment values. Post-IRLSSG mean in group 1 was 8.60±0.51 and in group 2 was 21.50±2.12 and p value was <0.001 (Table 3). Paired t-test was applied on baseline group 1 (interventional group) is compared with end value (interventional group) pre-IRLSSG score mean in group 1 was 24.47±6.79 and post-IRLSSG score mean was 8.60±0.51, mean difference was 15.94 ±6.27, p-value was <.001. Paired t-test was applied on baseline group 2 (control group) is compare with end value (control group). IRLSSG score mean in group 1 was 35.30±1.56 and post-IRLSSG score mean was 21.50±2.12, mean difference was 15.94±6.27, p-value was <0.001. IRLSSG score decrease more in interventional group than control group that shows the effectiveness of TENS as compared to stretching in treating restless leg syndrome (Table 4).
Restless legs syndrome (RLS) is a disorder that causes an uncontrolled need to move your legs, typically in response to an unpleasant sensation. It usually happens in the evening or at night, while you’re seated or lying down. Moving briefly alleviates the uncomfortable sensation [1]. Eloise G Harrison et all studied in 2019. That some non-pharmacological mediation might be valuable for decreasing RLS seriousness and improving rest. Current study concluded the same result that TENS are suitable and durable approach for RLS treatment and improve pain [18]. In another systematic review and meta-analysis to investigate the association between obesity and RLS, analyzing studies that reported relative risks, odds ratios, or hazard ratios comparing the risk of RLS among those with obesity vs people with normal weight. Adults who are obese are more prone to suffer from RLS, with women being at a greater risk[20,21]. Mansooreh Ali asghar pour et al. led an inquiry in public cash-flow to test the practicality of extending exercise on the seriousness of RLS in hemodialysis patients. The findings showed the need of training and conducting stretching exercises during dialysis for the goal of alleviating restless legs syndrome symptoms and hemodialysis patient quality of care [12].

Transcutaneous Electrical Nerve Stimulation (TENS) combined with stretching is more effective than stretching alone in reducing the severity of restless limb syndrome symptoms in an obese population, according to a current study. The findings emphasized the need of stretching and exercising.

**CONCLUSION**

It is concluded that both techniques TENS plus stretching and stretching alone are suitable and durable approach for RLS treatment and improve pain. But TENS therapy with stretching was more effective as compared to stretching alone to reduce symptoms severity of restless leg syndrome in obese population.

**REFERENCES**


