11th International Conference and Expo on

# Novel Physiotherapies and Physical Rehabilitation

August 09-10, 2023

Webinar



# Scientific Tracks & Abstracts

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# Patellofemral syndrome (Runner 's knee)

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**Introduction**: Pain around the kneecap is often a sign of overuse. In other words, the knee might have been exposed to too much or too frequent strain without being able to adapt to it fast enough. This is particularly common when doing sports such as jogging, mountaineering or intensive cycling. The condition is often referred to as "runner's knee" because of this.

There are currently no treatments that directly target the cause of pain at the front of the knee. But good-quality studies have shown that regularly doing exercises to strengthen the thigh and hip muscles can help people who do a lot of sports and develop acute knee pain is also advised to take a break from sports or do less for a while so that their knee can recover.

**Symptoms**: Pain at the front of the knee usually occurs just behind or next to the kneecap. Doctors then call it Patellofemral pain or Patellofemral pain syndrome (PFPS). "Patellofemral" means that it affects the area between the kneecap (patella) and the thigh bone (femur).

The pain is often mild at first and then gets worse over time. It tends to be a dull, aching pain and is particularly noticeable when you put strain on the knee – especially when going up or down stairs or bending the knee a lot. The knee may also hurt and feel stiff after sitting for a long time.

A lot of people who have knee pain can feel or hear crackling, crunching or creaking when they move the affected knee. But this isn't a reason for concern: There's no link between knee sounds and pain or the function of the knee. Many people have "noisy knees" without any pain or other knee problems. One reason why joints sometimes make sounds is because small bubbles of gas form in them and you can hear the bubbles bursting.

People whose knees make sounds can – and should – still move. The knee joint can only stay healthy if it is moved enough. If no pressure is applied to it, the cartilage in the joint isn't supplied with enough nutrients. The bones need to have strain put on them too, to stop them from becoming weaker.

**Causes**: Overuse of the knee can lead to small injuries around the kneecap – for instance, in the bands of tissue that hold it in place, in the bones and in the small nerves. It's not clear why some people develop knee problems and others don't. One factor that plays a role is how the kneecap moves along the trochlear groove in the joint.

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## Biography

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# Immediate impact of thoracolumbar fascia release techniques on range of motion, proprioception and muscular endurance in young, healthy individuals

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**Objective**: This research explores the immediate effects of Graston Technique (GT) and Myofascial Release (MFR) on the Thoracolumbar Fascia (TLF) in healthy young adults, specifically focusing on lumbar range of motion (ROM), lumbar and cervical proprioception, and trunk muscle endurance.

**Methods**: The study involved twenty-four healthy young individuals, randomly divided into two groups: GT (n=12) and MFR (n=12). The GT group received a fascial treatment using a Graston instrument, while the MFR group underwent manual myofascial treatment. Both techniques were administered in a single 10-minute session. Lumbar ROM (measured with a goniometer), lumbar proprioception (assessed using a digital inclinometer), cervical proprioception (measured with a CROM device) and trunk muscle endurance (evaluated with the McGill Endurance Test) were assessed both before and after the treatment.

**Results**: Participants' age, gender and body mass index were comparable between the GT and MFR groups ($p>0.05$). In both groups, there was a significant increase in lumbar ROM in the flexion direction ($p<0.05$) and a decrease in proprioceptive deviation angle during flexion ($p<0.05$). However, neither technique had a significant impact on cervical proprioception or trunk muscle endurance ($p>0.05$). Furthermore, no significant difference was found in the effectiveness of Graston and myofascial release ($p>0.05$).

**Conclusion**: The findings suggest that both Graston and myofascial release techniques effectively enhance lumbar ROM and proprioception in healthy young adults in the short term. These results indicate that both interventions can be utilized to promote TLF elasticity and improve proprioceptive response.

**Keywords**: Thoracolumbar fascia, fascial release, proprioception, range of motion.

## Biography

Sobia Hasan is currently working in the Iqra University North Campus, Pakistan.

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