**Mid-Term Assignment (Spring 2020) (DPT 6th Semester)**

**Course Title: Manual Therapy Instructor: Dr. Maria Feroze**

**Time: 48 hours Max Marks: 30**

**Note:**

* **You can use Google/ Google Scholar as a source of help but refrain from copy pasting the data directly from these sources.**
* **More than 25% plagiarism in your answer will not be acceptable.**
* **Don’t forget to add the references at the end of your answer.**

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Q1. Mulligan introduced the concept of Natural Apophyseal Glides (NAGs), Sustained Natural Apophyseal Glides (SNAGs) and Mobilization with movement (MWM) as a way of treating various musculoskeletal conditions. List three conditions where this concept can be used as a therapeutic intervention, elaborate each one of them **separately.** Go through different research studies/articles from the web to support your answer. Summarize your answer in a minimum of 700 words for **each** of the three conditions you list.

Neck pain is a common musculoskeletal disorder in todays world. 67% people have its complain . The pain is severe some times and fades periodically, but some of the symptoms are still there . Its main cause seen is maintaining a bad posture for a long time of shoulders or neck muscles (sternocleidomastoid muscle)., neck movement occurs with the movement of upper thoracic spine. Sitting on a chair in office and decreasing the movement of the upper cervical spine impacts a lot of burden on lower cervical spine, increase fatigue in the sternocleidomastoid, anterior scalenus, and upper trapezius, having changes in neck postures, and having less motion than normal range.

In order to reduce or treat neck pain, mulligan have introduced some techniques known as SNAGs and NAGs ( sustained natural apophyseal glides and natural apophyseal glides) these techniques can be performed in a way that you have to maintain the posture of patient and your self as well. Make the patient in position that his head become straight to your chest, and maintain his position. After that you have to find the specific or affected vertebrae, you can find vertebrae through the 7th vertebrae which lies more prominent and others lie next with the distance of About one little finger. After finding the specific vertebrae you have to place your hand in a way that your one thumb be placed on the vertebrae and on the other thumb you have to give glides to the vertebrae or simply push the vertebrae with ten repetitions

In the other technique the physiotherapist would place both of the thumbs over the vertebrae and push the vertebrae inward and ask the patient to do full flexion of head and do over press as well for a short time hold the hand in flexed form and then ask to release head and bring in normal position.

After that the physiotherapist would hold the vertebrae in same way and would ask the patient to extend his head and also apply over pressure as well, hold for a while and then release to the normal range.

Neck pain is most common in older people and is nonspecific. There are four conditions of neck pain 1) pain with mobility restrictions, 2) pain with movement and coordination impairments 3) neck pain with headache and 4) neck pain with radiating pain (or radiating neck pain). By applying mulligan techniques it result a decreased in pain, it also corrected positional faults in the bony structure. SNAGs had a greater effect in not only repositioning the superior articular facet joint and correcting the posture it also had an effect of sympathoexcitation causing changes in motor and sympathetic system resulting in reduced pain and increased ROM in the neck. The passive mobilization has a great Impact in clinical uses for the treatment of chronic neck pain, especially in interventions that includes exercises. Self SNAGS are to be performed by the patient himself, a towel would be used by patient as a support to neck and would perform the same movements ( rotations, feelings, extensions and side bending) the patient would over press the movement as well. Each movement would have three repetitions of three sets. The mulligan techniques have a great positive affects in manual therapy to reduces pain and improves mobility and range of motion.

**Reference**:

[https://sci-hub.tw/https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5976899/](https://sci-hub.tw/https:/www.ncbi.nlm.nih.gov/pmc/articles/PMC5976899/)

<https://www.heighpubs.org/jnpr/jnpr-aid1018.php>

Frozen shoulder:-

It is condition of shoulder joint and is charecterrized by stiffness also known as adhesive capsulitis, it is painful Condition in which the movements of shoulder become restricted. The capsule around the shoulder joint becomes inflamed it tightens and shrink and stops movement . usually people aging from 40 to 70 have this problem. People suffering from diabeties and thyroid gland problems have a high chance of frozen shoulder while no specific cause is known. Women are more affected by this. this might because of Repetitive activities for example daily life activities ( washing clothes, dusting and other activities) it depends on occupation of person as well for example use of hammer By carpenter, uses if brush by painter etc or by Improper posture. Other causes may include post operative conditions for example any surgery performed to the shoulder to which lately used braces or splints to reduce the movement in order to heal the operated part. This reduction in movements can lead to the damage to capsule. Rotator cuff injuries or fractures to the associated bones like clavicle can also cause this condition.

There are three stages of this condition, the freezing stage, the frozen stage and the thawing or recovery stage. In freezing stage the pain starts increasing and the movements become More Restricted the shoulder joint is difficult to be moved this stage is from 6 weeks to 9 months. In frozen stage the pain would be less ut the joint would be stiffed and the movements restricted it is more difficult to perform daily life activities in this stage. This stage is from two to six months. In the recovery stage the shoulder moves towards recovery and the range of motion starts improving works are easily to be performed. ( six months to two years). Mulligan techniques: mulligan introduces techniques in the manual therapy techniques that plays a key role in the treatment of mechanical problems, these techniques are very useful in the reduction of pain and improvement of range of motion, these techniques are useful in the retaining of movements restricted or the ranges of motion restricted due to various conditions, to improve the postures.

In order to check the efficiency of mulligan technique a case study was performed In which two groups of people were taken who were having frozen shoulder syndrome, one group of them was treated with hot packs TENS and mulligan techniques and the other group was treated with hot packs, TENS and stretching exercises. This process was having time period of three months under the supervision of physio therapist, while comparing the mulligans techniques and stretching exercises it was concluded that Mulligan's technique was more beneficial in treatment and in increasing of range of motions and giving analgesic effects. While the stretching exercises were having pain relieving effects. On visual analogue scale various outcomes were observed from the sections, goniometer was used for the measurements of range of motion and in order to get satisfaction questionnaire was conducted. Other tests were performed insider to check the improvements for the frozen shoulder. Different movements were performed on shoulder joint during the whole session ( flexing, extension, rotation etc) after the treatment of three months the patients were improved with pain and movements were improved as well.

Another case study compared the treatment strategies done by the techniques of Mulligan with Maitland’s end range mobilization in the patients of diabetic frozen shoulder. This case study was done for almost two months. In this two groups were made obtaining the Mulligan’s techniques and the Maitland’s end range mobilization. Patients from both of the groups demonstrated improvements. But the patients from the Mulligan’s group were showing betterment more than the other group.

**References:-**

https://www.ijphy.org/index.php/journal/article/view/128

https://www.ingentaconnect.com/content/mjl/sreh/2013/00000045/00000001/art00013

<https://my.clevelandclinic.org/health/diseases/15359-frozen-shoulder>