



## **Exercise Education in Carpal Tunnel Syndrom in Village Kasang Kumpeh**

**Indah Permata Sari** <sup>1\*</sup>, **Mawaddah Warahmah** <sup>2</sup>  
Study Program DIII Physiotherapy Stikes Baiturrahim Jambi

**ABSTRACT** : Education exercise on case carpal tunnel syndrome Her workout includes rest wrist hand which painful, avoid profession which cause painful, compress cold in area which painful During 10-15 minute and practice stretching. This method of education provides leaflet and explain leaflet and discussing exercise education with carpal tunnel syndrome sufferers. Service activities to Public held month October 2021 with target patients with carpal tunnel syndrome in Kasang Kumpeh village. The purpose of activity devotion Public this is for increase public knowledge regarding carpal tunnel syndrome. This activity is very beneficial and also has a good impact on the community to reduce stiffness and complaints pain and for those who only feel the signs and symptoms is very helpful because it gives knowledge to prevent more further occurrence of carpal tunnel syndrome.

**Keywords** : Education Exercise, Carpal Tunnel Syndrome

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**Corresponding Author:** [indahpermata.fisio11@gmail.com](mailto:indahpermata.fisio11@gmail.com)

## **BACKGROUND**

Carpal tunnel syndrome (CTS) is compression or compression of the median nerve that passes through the carpal tunnel in the upper extremity. Pressure on the median nerve results in motor and motor disturbances Sensory areas of the hands and fingers. Motor disorders that occur in the form of: reduced to loss of grip strength, and hand skills as a result of weakness and atrophy of the thenar muscles. Sensory disturbances can be in the form of tingling, less sensitive to touch on fingers I, II, III and the lateral side of finger IV (Salim, 2017). The prevalence of carpal tunnel syndrome cases is about 40% of all cases in the upper extremities, women are more affected than men. Generally occurs over the age of 30 years and over (Liza and Syahrul, 2014). The first symptoms of carpal tunnel syndrome are pain, numbness and paresthesias. These symptoms generally appear, with certain variability such as in the thumb, index, middle and radial half (thumb side) of the ring finger, and at night. days of pain when the hand is at rest . Further development of symptoms, pain occurs during the day, especially with activities that use repetitive wrist movements, such as when drawing, typing, washing or squeezing. In more severe stages of pain symptoms occur permanently. (Gems and Ismaningsih, 2020).

Exercise education in the case of carpal tunnel syndrome, exercises include resting the wrist that hurts, avoiding work that causes pain, cold compresses on the painful area for 10-15 minutes, it is not recommended to directly massage the area, and stretching exercises include stretching the arm to the side, then, clench it hand, then bend the wrist downwards hold for 30 seconds then repeat step no 3 but the wrist is bent upwards, and Rest the arm and stretch for about 1 minute. (Lee, 2019). Exercise carpal tunnel syndrome can also be given active stretching and hand exercise. Active Stretching is a type of stretching procedure that is carried out independently after being given instructions without getting help from external forces. Hand exercise is a movement in the wrist area in accordance with the correct sequence of movements. Hand exercise consists of two movements, namely tendon gliding and nerve gliding (Prasetyo and Khairunnisa, 2021).

## **METHODOLOGY**

Community service activities will be carried out in October 2021, targeting carpal tunnel syndrome sufferers in Kasang Kumpeh village. Procedure for the first activity asking for permission to the village head, after getting the next permit designing materials and making leaflets about exercise education. After that, distribute leaflets and present existing materials in the leaflet related to educational exercise activities in the case of carpal tunnel syndrome , and after completing a discussion and question and answer session with the community.

## **RESEARCH RESULT**

This exercise education activity is very useful for carpal tunnel syndrome sufferers, when they are given this exercise, namely active stretching and hand

exercise, the patient still feels pain before doing the exercise and after the exercise the patient's pain is reduced. These sufferers feel happy because this activity gives them knowledge to practice at home to prevent further carpal tunnel syndrome , and also this educational activity gives them knowledge and knowledge of what things they need to do when pain occurs.



Figure 1 Exercise Education Activities

## DISCUSSION

Exercise education in the form of stretching is an action taken to minimize the risk of disruption in the workplace or daily activities. The benefit of stretching exercises is to optimize movement by stretching muscles, tendons, ligaments, and joints so that it can work optimally and increase physical relaxation by stretching tense body muscles to relax. Stretching is a very simple activity that can make the body feel good which can overcome muscle tension and stiffness (Setyowati and Fatimahhayyati, 2021). Hand exercise has a positive effect on carpal tunnel syndrome by facilitating venous return in the median nerve. By stretching and lengthening the flexor muscles that close the hand and strengthening and shortening the extensor muscles that open the hand, the carpal tunnel can return to its normal size. In addition, reducing pressure from the tendon and median nerve relieves friction and symptoms of carpal tunnel syndrome ( Prasetyo and Khairunnisa , 2021).

## CONCLUSIONS AND RECOMMENDATIONS

Community service carried out in Kasang Kumpeh village has been carried out people who take part in educational exercise activities in the case of carpal tunnel syndrome already understand these educational activities. The residents of Kasang Kumpeh village gave a positive response to this educational activity and they were very satisfied because it increased their knowledge and insight regarding carpal tunnel syndrome complaints.

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## REFERENCES

- Lee, 2019. Total Physiocare Carpal Tunnel syndrome Books Online.
- Permata, A., & Ismaningsih, I. (2020). Application of Neuromuscular Taping in Carpal Tunnel Syndrome to Reduce Pain. *Scientific Journal of Physiotherapy* , 3 (1), 12-17. <https://doi.org/10.36341/jif.v3i1.1226>
- Prasetyo Budi E., & Khiarunnisa Mulida A. (2021). Management of Active Stretching and Hand Exercise to Prevent Carpal Tunnel Syndrome in Smartphone Use in Kauman Village, Batang District, Batang Regency. *Abdimas pen.* 2(2), 22-31.
- Salawati, L. (2014). *Carpal Tunnel Syndrome* . Syiah Kuala Medical Journal. 14(1), 29-37.
- Setyowati, DL, & Fatimahhayati, LD (2021). *Cstretchwc Exercised Stretching Training Module For Symptoms of Carpal Tunnel Syndrome in Beading Craftsmen* . 46.
- Salim, D. (2017). Enforcement of the diagnosis and management of Carpal Tunnel Syndrome. *Journal of Meditechnology Medicine* , 23 (6), 67-70.