

A Descriptive Study of Low Back Muscle Pain of People in Klaten in 2019

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Abstract: The prolonged work in different work areas certainly causes muscle pain in different parts of body, and we cannot be productive if we are not in good physical conditions. The purpose of this study is to show the current situation about the health condition of people in Klaten especially on the musculoskeletal disorders. The research method is a descriptive study with mixed method of qualitative and quantitative approach, the sample of this study consists of 50 patients with low back pain muscles taken using quota sampling. The results of the study showed that 85% from the whole part of the patients who came to take consultation, those with low back pain muscle were found. Research limitations/implications – Although this study lacks generalizability, low back pain muscle is the most common injury of klaten population and it is handicap of productivity in many fields. This study is the first to apply to explain career the current situation of the health of klaten people. In conclusion, the prevalence of low back pain muscle is a strong obstacle for klaten population.

1 INTRODUCTION

Low back pain is the most commonly musculoskeletal disorder affects adults with a prevalence of up to 84% (Allegri, 2016: 4). *International Labor Organization* (ILO) in 2013 states that every 15 seconds, there is one person worker died from work accidents and 160 workers experience pain as a result of working. In the previous year, number of deaths from accidents and occupational diseases as much as 2 million cases each year was recorded. Low back represents one of the major causes of disability worldwide. Paolucci, T., Attanasi, C., Cecchini, W., Marazzi, A., Capobianco, S., & Santilli, V. (2018). Gupta, G., & Nandini, N. (2015). Low back pain (LBP) is the most frequent work related musculoskeletal complaint and one of the leading causes of health related problems in developed world one occupational diseases are becoming a common health problem in the world and affects almost the entire population is LBP. Lower back pain is a major cause of disability affecting employment and general welfare. Complaints LBP can happen to everyone, whether gender, age, race, educational and professional status prevalence of musculoskeletal pain, including LBP, described as an epidemic. About 80 percent of the population had suffered from lower back pain at least once in his life. According Riskesdas in 2013, the prevalence of

musculoskeletal disease in Indonesia is based on ever diagnosed by health personnel of 11.9 percent and is based on a diagnosis or symptom that is 24, 7 percent, while in Lampung province, the prevalence of musculoskeletal diseases based on diagnosis and symptoms, namely 18.9 percent. The highest prevalence of musculoskeletal diseases based jobs are farmers, fishermen or laborers is 31.2 percent. The prevalence increased continuously and reached its peak between the ages of 35 to 55 years. The older a person gets, the more risk of suffering from LBP will increase because of abnormalities in the intervertebral discs in old age. Hoy D, Brooks P, Blyth F, Buchbinder R(2010), Low back pain is an extremely common problem that most people experience at some point in their life. Meanwhile, substantial heterogeneity exists among low back pain epidemiological studies limiting the ability to compare and pool data, estimates of the 1 year incidence of a first-ever episode of low back pain range between 6.3% and 15.4%, while estimates of the 1 year incidence of any episode of low back pain range between 1.5% and 36%. In health facility- or clinic-based studies, episode remission at 1 year ranges from 54% to 90%; however, most studies do not indicate whether the episode was continuous between the baseline and follow-up time point(s). Most of people who experience activity limiting low back pain go on to have recurrent episodes.

Estimation of recurrence at 1 year range from 24% to 80%.

According to an interview with Mr. Suhono, 85% of visiting his clinic were found with low back pain muscle. It is with a wide range of professions including farmers, civil servants, office workers, housewives, drivers, and so forth. The average of patient's age was fixed from 25 and beyond. The level of the pain was very strong. The cause of the low back pain was multivariate: from sports, no exercise and busy daily activities. The aims of this are to show the current situation about the health of Klaten people especially on the musculoskeletal disorders. This study is very important to show to the research of the further study to try to find out the solution of the problem above.

2 RESEARCH METHOD

This research is a descriptive study with mixed method approach, qualitative and quantitative approach. The sample was people from Klaten with low back pain and it includes youth, adult and older man and women, the whole sample were 50 by quota sampling. The age of sampling was from 25 and beyond. The data were collected using two techniques, literature review, field survey, and interview. After getting data, the researchers processed an analysing data by Excel in order to know the prevalence and frequency of the severe trauma for the Klaten people.

3 RESULT

In this part, we will have to make up the results from the research and a kind of discussion. The counting was done by gathering the identical answers. The results obtained were calculated as a percentage of the totals from the questionnaire. Histograms were used for interpretation of results. The following are the results from all the respondents.

3.1 What Your Profession?

According to this question, the researcher would like to know the type of work of the patients because most of the low back pain is caused by the nature of the work, the result showed that 25% from the sampling were soldiers. This is explained by the long-time which is taken by them during the work including 15% who were drivers, no one can ignorant that driver take long time in sitting position and sometimes the

car chair does not allow a comfort fitness for the male driver, 35% were farmers in many different places from Klaten people live from agriculture like rice and that one. Its operation is so hard because it demands a bent position which occur the low pain. 15% were private daily activities. Daily activities are the most cause of the low back pain in the hand of their feasible which necessary demand the bent position, and 10% were polices, the police job is so hard, and they have to still long time in standing position. In general, the prolonged working time accompanied by monotony or inadequate posture causes musculoskeletal pain. Human life is built by many different bolts, but most of them cause physical and mental discomfort. The ability to work in a variety of work areas overtime generates a high muscle problem in many parts of the human body, such as: Back muscle, trapezius, hamstring muscles, quadriceps muscles, gastronomy, soleus and others.

3.2 Did You Often Suffer from Low Back Pain Muscle?

From all the patients who come to take treatment in that private place, 85% had low back pain muscle, this average showed that the prevalence of suffers in that place are many, so it necessary a new approach to help people from Klaten, because the quality and productivity of the work depended on the good physical condition and skills. The prolonged work in different work areas certainly causes muscle pain in different party of body.

3.3 Did You Ever Practice Sport and What Type of Sport Did You Do?

From this question, this study wanted to know if the people do sport in order to solve the body problem. The result from the patients showed that only few people whom have initiative of doing sport like jogging, baddy Minton, but the time and the volume were not sufficient. Taking a posture for a long time during any work or activity is an influential factor for musculoskeletal disorders or pains of different parts of the body. In particular, the lack of muscle relaxation is the main cause of these defects in the human framework.

4 DISCUSSION

The presence of the musculoskeletal disorder in the lower limbs expressed especially on the low back

muscle of workers indicated how work is very dangerous on the human muscle. Erwin S. K., Hari. S, E. (2019), in their study showed that knowing the nature of the disorder is necessary because the pain does not allow the continuous work (Hildebrandt, T., Shope, S., Varangis, E., Klein, D., Pfaff, D. W., & Yehuda, R. (2014). In Klaten, the prevalence of people suffering from low back pain is quite high, so that this defat could affect the productivity in several field and attack the wellbeing of human as we know physical and mental are mutual influence each other. Romeo, V., Cavaliere, C., Sorrentino, C., Ponsiglione, A., Ugga, L., Barbuto, L., ... Covello, M. (2018) in their study, they state that occupation/working is the cause of the low back pain in detecting significant extraspinal imaging findings in patients with low back pain (LBP). We retrospectively evaluated 931 lumbar spine MR examinations of patients with LBP and the cause was working/occupation.

In different countries, it was found that the quality and productivity of the work depended on the good physical condition and skills. The prolonged work in different work areas certainly causes muscle pain in different party of body. Taking a posture for a long time during any work or activity is an influential factor for musculoskeletal disorders or pains of different parts of the body. Hwang-Bo, G., & Lee, J.-H. (2011). The paper describes the case of a physical therapist with acute Low Back Pain (LBP) due to patient handling and the efficacy of Kinesio Taping (KT) around the trunk in the treatment of this occupational LBP. Materials and Methods: KT was applied around the trunk for 3 days, for an average of 10 h/day. Kinesio tape was applied with 130–140% stretch to the rectus abdominis, internal oblique, erector spinae, and latissimus dorsi muscles, which are activated in the process of lifting. In particular, the lack of muscle relaxation is the main cause of these defects in the human framework. The ergonomic sciences have tried to correct the tools usable by the citizens during the various bolts, but there is still a deeply lacking of discomfort Capodaglio, E.M. (2017). Melloh M, Röder C, Elfering A, Theis JC, Müller U, Staub LP, et al (2008). Low back pain (LBP) is currently the most prevalent and costly musculoskeletal problem in modern societies. Screening instruments for the identification of prognostic factors in LBP may help to identify patients with an unfavourable outcome.

5 CONCLUSION

This research was a descriptive study which showed the current situation in Klaten about low back pain muscle and its causes. Further research is needed to understand the health impact of prolonged sitting and combine posture at work and to reach consensus on recommended hours of work, rest allowances and alternate work. Further studies are needed not only to solve the low back disorders in order to allow the health of human, but also to increase productivities in every field of human living. Collaboration between ergonomists, designers, occupational physicians, work technicians and different actors is needed to improve the well-being and working environment of human working in the retail sector.

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REFERENCES

- Allegrì, M., Montella, S., Salici, F., Valente, A., Marchesini, M., Compagnone, C., ... Fanelli, G. (2016). Mechanisms of low back pain: a guide for diagnosis and therapy. *F1000Research*, 5, 1530. doi:10.12688/f1000research.8105.2
- Hildebrandt, T., Shope, S., Varangis, E., Klein, D., Pfaff, D. W., & Yehuda, R. (2014). Exercise Reinforcement, Stress, And B-Endorphins: An Initial Examination Of Exercise In Anabolic– Androgenic Steroid Dependence. *Drug And Alcohol Dependence*, 139, 86–92. doi:10.1016/j.drugalcdep.2014.03.008
- Capodaglio, E. M. (2017). Occupational Risk And Prolonged Standing Work In Apparel Sales Assistants. *International Journal of Industrial Ergonomics*, 60, 53–59. doi:10.1016/j.ergon.2016.11.010
- Romeo, V., Cavaliere, C., Sorrentino, C., Ponsiglione, A., Ugga, L., Barbuto, L., ... Covello, M. (2018). Clinical Impact Of Coronal-STIR Sequence In A Routine Lumbar Spine MR Imaging Protocol To Investigate Low Back Pain. *Medicine*, 97(23), e10789. doi:10.1097/md.00000000000010789
- Paolucci, T., Attanasi, C., Cecchini, W., Marazzi, A., Capobianco, S., & Santilli, V. (2018). Chronic Low Back Pain And Postural Rehabilitation Exercise: A Literature Review. *Journal of Pain Research*, Volume 12, 95–107. doi:10.2147/jpr.s171729

- Gupta, G., & Nandini, N. (2015). Prevalence Of Low Back Pain In Non Working Rural Housewives Of Kanpur, India. *International Journal Of Occupational Medicine And Environmental Health*.doi:10.13075/ijomeh.1896.00299
- Hwang-Bo, G., & Lee, J.-H. (2011). Effects Of Kinesio Taping In A Physical Therapist With Acute Low Back Pain Due To Patient Handling: A case report. *International Journal of Occupational Medicine and Environmental Health*, 24(3).doi:10.2478/s13382-011-0029-8
- Bogduk, N. (2006). Psychology And Low Back Pain. *International Journal of Osteopathic Medicine*, 9(2), 49–53.doi:10.1016/j.ijosm.2005.11.005
- Hoy D, Brooks P, Blyth F, Buchbinder R(2010). The Epidemiology Of Low Back Pain. *Best Pract Res Clin Rheumatol*. 24(6):769-81.
- Melloh M, Röder C, Elfering A, Theis JC, Müller U, Staub LP, et al (2008). Differences Across Health Care Systems In Outcome And Cost-Utility Of Surgical And Conservative Treatment Of Chronic Low Back Pain: A Study Protocol. *BMC Musculoskeletal Dis*;9(1):81

