

BAB 6

SIMPULAN DAN SARAN

6.1. Simpulan

Penelitian mengenai hubungan kebiasaan lama duduk dengan *myofascial pain syndrome* yang dilaksanakan pada tanggal 9 Agustus 2014, 30 Agustus 2014, dan 20 September 2014 dengan jumlah sampel penelitian 37 sampel. Dari penelitian ini dapat diambil kesimpulan sebagai berikut :

- 6.1.1. Tidak terdapat hubungan antara lama duduk dengan *Myofascial Pain Syndrome*.
- 6.1.2. Terdapat hubungan antara periode lama duduk dengan *Myofascial Pain Syndrome*.

6.2. Saran

- 6.2.1. Bagi CV. INTISARI JAYA dan institusi lain yang terkait Berdasarkan penelitian ini diharapkan pekerja lebih memperhatikan lama duduk dalam bekerja untuk mengantisipasi masalah – masalah yang dapat timbul, seperti *myofascial pain syndrome*, dan masalah neuromuskuloskeletal lainnya.

- 6.2.2. Bagi Penelitian Selanjutnya Untuk penelitian selanjutnya, sebaiknya peneliti menggunakan instrumen / kuisioner resmi yang telah dibuat oleh lembaga

kesehatan resmi / dunia. Penelitian eksperimen diperlukan untuk melihat perjalanan penyakit *myofascial pain syndrome* berdasarkan proses terjadinya sindroma atau gejala – gejala. Perlu dilakukan analisis dan penelitian lebih lanjut mengenai faktor-faktor lain yang dapat mempengaruhi timbulnya *Myofascial Pain Syndrome*, selain lama duduk dan periode lama duduk. Faktor – faktor lain yang bisa menjadi penelitian, seperti : Hubungan depresi dan anxietas terhadap *Myofascial Pain Syndrome*, Hubungan postur saat bekerja dengan kejadian *muscle fatigue*, Hubungan kebiasaan lama duduk dengan *Fibromyalgia*, Hubungan tingkat kebugaran dengan *muscle fatigue*, dan lain – lain.

DAFTAR PUSTAKA

- Anghel, M. dkk. 2007. Musculoskeletal Disorders (MSDS)-Consequences of Prolonged Static Postures. *Journal of Experimental Medical & Surgical Research*. Sept; 16(4): 161 – 172. Retrieved Sept 16, 2014, from <http://jmed.ro/articole/104.pdf>
- Baranoski, S. & Ayello, E.A. 2008. *Wound Care Essentials Practice Principles*; 2nd Edition. Philadelphia: Williams & Wilkins
- Bellendir, T. 2013, Oct 28. 5 Exercises to Prevent an Aching Neck. Retrieved Oct 14, 2014, from <http://www.urmc.rochester.edu/encyclopedia/content.aspx?ContentTypeID=1&ContentID=745>
- Bennett, R. 2007. Myofascial pain syndromes and their evaluation. *Best Pract & Res Clin Rheumatol*. Jun; 21(3): 427 – 45. Retrieved Jan 07, 2014, from <http://www.drsvanderveen.nl/PDF/Myofascial%20pain%20syndromes%20and%20their%20evaluation.pdf>
- Berkowitz, B. & Clark, P. 2014, Jan 20. The Health Hazards of Sitting. *The Washington Post*. Retrieved May 14, 2014, from <http://apps.washingtonpost.com/g/page/national/the-health-hazards-of-sitting/750/>
- Chandola, H.C. & Chakraborty, A. 2009. Fibromyalgia and Myofascial Pain Syndrome-A Dilemma, *Indian J Anaesth*. Oct; 53(5): 575 – 581. Retireved Jan 07, 2014, from http://www.ijaweb.org/temp/IndianJAnaesth535575-3618032_100300.pdf
- Chandrasekhar, A. 2006, Mar 28. Neck: Range of Motion Of : To examine the integrity of cervical joint. Retrieved Apr 27, 2014, from <http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/pstep20.htm>

- Chen, Q. dkk. 2007. Identification and quantification of myofascial taut bands with magnetic resonance elastography. *Archives of Physical Medicine and Rehabilitation*. Dec; 88(12) : 1658-61. Retrieved Oct 14, 2014, from http://www.researchgate.net/publication/5799842_Identification_and_quantification_of_myofascial_taut_bands_with_magnetic_resonance_elastography/links/0fcfd50a25cb34d8ef000000
- Christie, A. dkk. 2011. Systematic review and meta-analysis of skeletal muscle fatigue in old age. *Med Sci Sports Exerc.* Apr; 43(4) : 568-77. Retrieved Oct 12, 2014, from <http://www.ncbi.nlm.nih.gov/pubmed/20881888>
- Cooper, C. dkk. 2010. *Integrative Therapies for Fibromyalgia, Chronic Fatigue Syndrome, and Myofascial Pain Syndrome : the mind-body connection*. Rochester: Healing Arts Press.
- Cush, J.J. dkk. 2005. *Rheumatology Diagnosis & Therapeutics; 2nd Edition*. Philadelphia: Lippincott Williams & Wilkins.
- Davis, T. 2013, Feb 18. Sitting time associated with increased risk of chronic disease. Retrieved Feb 6, 2014, from <http://www.k-state.edu/media/newsreleases/feb13/sitting21813.html>
- de las Penas, C.F. dkk. 2010. *Tension Type and Cervicogenic Headache : Pathophysiology, Diagnosis, and Management*. Sudbury : Jones and Bartlett Publishers, LLC
- Delgado, E.V. dkk. 2009. Myofascial Pain Syndrome associated with Trigger Points: A literature review. (I): Epidemiology, clinical treatment and etiopathogeny, *J Med Oral Patol Oral Cir Bucal*. Oct 1; 14(10): e494-8. Retrieved Jan 14, 2014, from <http://www.medicinaoral.com/medoralfree01/v14i10/medoralv14i10p494.pdf>

- Desai, M.J. dkk. 2013. Myofascial Pain Syndrome: A Treatment Review, *Pain Ther.* Sept 27; 2: 21-36. Retrieved Jan 14, 2014, from http://download.springer.com/static/pdf/677/art%253A10.1007%252Fs40122-013-0006-y.pdf?auth66=1398875094_372a13fa33c0c3eb2ba2cdd05326a8b2&ext=.pdf
- Doggweiler-Wiygul, R. 2004. Urologic Myofascial Pain Syndrome. *Curr Pain Headache Rep.* Dec; 8(6): 445-51. Retrieved Oct 14, 2014, from <http://www.prostatitis-forum.com/docs/urologic.mps.pdf>
- Dommerholt, J. & Huijbregts, P. 2010. *Myofascial Trigger Points ; Pathophysiology and Evidence-Informed Diagnosis and Management.* Sudbury : Jones and Bartlett Publishers, LLC
- Edwards, J. 2005. The Importance of Postural Habits in Perpetuating Myofascial Trigger Point Pain, *J British Med Acupunct Soc.* June; 23(2): 77-82. Retrieved Jan 18, 2014, from <http://www.ncbi.nlm.nih.gov/pubmed/16025788>
- Eriyanto. 2007. *Teknik Sampling Analisis Opini Publik.* Yogyakarta : PT. LKiS Pelangi Aksara Yogyakarta.
- Freedman, M. dkk. 2007. *Minimally Invasive Musculoskeletal Pain Medicine.* New York : Informa Healthcare USA, Inc.
- Freivalds, A. 2004. *Biomechanics of the Upper Limbs: Mechanics, Modeling and Musculoskeletal Injuries.* Boca Raton, FL: CRC.
- Gerwin, R.D. dkk. 1997. Interrater reliability in myofascial trigger point examination. *Pain.* Jan; 69(1-2) :65-73. Retrieved Oct 14, 2014, from http://www.painpoints.com/professionals/downloads/pain_mtrpreliability_gerw_shan97.pdf
- Gerwin, R.D. & Mense, S. 2010. *Muscle Pain ; Diagnosis and Treatment.* Heidelberg : Springer

- H, Breivik. dkk. 2008. Assesment of Pain. *Br J Anaesth*; 101(1): 17 – 24. Retrieved Jan 14, 2014, from http://www.medscape.com/viewarticle/580952_2
- Harrianto, R. dkk. 2006. Pola kerja sebagai faktor risiko terjadinya Occupational Overuse Syndrome pada pekerja pria perusahaan bubuk deterjen, *Universa Medicina*. Apr-Jun; 25(2) : 75-83. Retrieved Jan 14, 2014, from <http://www.univmed.org/wp-content/uploads/2012/04/Ridwan.pdf>
- Hicks, A.L. dkk. 2001. Sex differences in human skeletal muscle fatigue. *Exercise and Sports Sciences Reviews*. Jul; 29(3) : 109-12. Retrieved Sep 18, 2014, from http://journals.lww.com/acsm-essr/Abstract/2001/07000/Sex_Differences_in_Human_Skeletal_Muscle_Fatigue.4.aspx
- Huguenin, L.K. 2004. Myofascial Trigger Points: the current evidence, *Physical Therapy in Sport*. 5 : 2 – 12. Retrieved Jan 14, 2014, from <http://terapiamanipulativa.com.br/Myofascial%20trigger%20points.pdf>
- Hunter, S.K & Enoka, R.M. 2001. Sex differences in the fatigability of arm muscles depends on absolute force during isometric contractions. *J Appl Physiol*. Dec; 91: 2686-2694. Retrieved Sep 19, 2014, from <http://jap.physiology.org/content/91/6/2686>
- Jantos, M. 2007. Understanding chronic pelvic pain. *Pelviperineology*. June; 26(2) : 66-69. Retrieved Oct 14, 2014, from http://www.pelviperineology.org/practical/pdf/understanding_chronic_pelvic_pain.pdf
- Kent-Braun, J. A. 2009. Skeletal Muscle Fatigue in Old Age: Whose Advantage?. *Exerc Sport Sci Rev*. Jan; 37(1) : 3-9. Retrieved Oct 17, 2014, from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697566/>

- Lucas, N. dkk. 2009. Reliability of physical examination for diagnosis of myofascial trigger points: a systematic review of the literature. *Clin J Pain*. Jan; 25(1): 80–9. Retrieved Oct 14, 2014, from http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB8QFjAA&url=http%3A%2F%2Fwww.researchgate.net%2Fpublication%2F23807217_Reliability_of_physical_examination_for_diagnosis_of_myofascial_trigger_points_a_systematic_review_of_the_literature%2Flinks%2F0912f50b6f100f178f000000&ei=pC9LVLLjFsFz8gXKsIHQBQ&usg=AFQjCNEKhRq7OcyvR8jU2j5nvNdjnuY_Q&bvm=bv.77880786,d.dGc
- Luo, J.J. & Dun, N.J. 2013. Chronic Pain: Myofascial Pain and Fibromyalgia, *Int J Phys Med Rehabil.* Aug; e102 : 1-2. Retrieved Jan 14, 2014, from <http://omicsonline.org/chronic-pain-myofascial-pain-and-fibromyalgia-2329-9096.1000e102.pdf>
- Mayoclinic. 2012, Jan 05. Diseases and Conditions Myofascial Pain Syndrome : Complications. Retrieved Feb 24, 2014, from <http://www.mayoclinic.org/diseases-conditions/myofascial-pain-syndrome/basics/complications/con-20033195>
- Mortazavi, H. dkk. 2010. Myofascial Pain Dysfunction Syndrome (MPDS). *Iranian Journal of Otorhinolaryngology*. Aug 10; 22(61): 131-136 . Retrieved Oct 14, 2014, from http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB8QFjAA&url=http%3A%2F%2Fijorl.mums.ac.ir%2Fpdf_368_b14ce8c0949d16bf1a0b217c58e7d8e2.html&ei=49ILVN_JISA8gWrsoCoCA&usg=AFQjCNHb3za_WSLC6yJjjpR3Mhcpxkb12w&bvm=bv.77880786,d.dGc
- Necksolutions. 2014. Posture and Pain. Retrieved Apr 28, 2014, from : <http://www.necksolutions.com/posture-pain.html>
- Price, J. 2010. Corrective Exercise For Prolonged Static-Posture Damage. *Idea Fitness J.* Apr; 7(4). Retrieved Mar 14, 2014, from <http://www.ideafit.com/fitness-library/corrective-exercise-for-prolonged-static-posture-damage>

- Rha, DW. 2011. Detecting local twitch responses of myofascial trigger points in the lower-back muscles using ultrasonography. *Arch Phys Med Rehabil.* Oct; 92(10): 1576-1580. Retrieved Oct 14, 2014, from http://www.indabook.org/preview/BkCFCWu-Uy7xKGpVOU2YphmHriM2lbv2Tj_ZBnZtulk./Detecting-Local-Twitch-Responses-of-Myofascial-Trigger.html?query=Original-Article-PAIN-RANGE-OF-MOTION-AND-BACK
- Rodante, J.A. dkk. Myofascial Pain Syndrome: Uncovering the Root Causes. 2012, Jul 01. Retrieved Jan 14, 2014, from www.practicalpainmanagement.com/printpdf/10749
- Russ, D.W & Kent-Braun, J.A. 2003. Sex differences in human skeletal muscle fatigue are eliminated under ischemic conditions. *J Appl Physiol.* Jun ,94(6) : 2414-2422. Retrieved Oct 16, 2014, from <http://www.ncbi.nlm.nih.gov/pubmed/12562681>
- Shmerling, R.H. 2014, Jan 22. Approach to the Patient with Myalgia. Retrieved Feb 26, 2014, from <http://www.uptodate.com/contents/approach-to-the-patient-with-myalgia>
- Simons, D.G. 1986. Fibrositis / fibromyalgia: a form of myofascial trigger points?. *Am J Med.* Sep; 81(3A): 93-8. Retrieved Jan 14, 2014, from <http://www.ncbi.nlm.nih.gov/pubmed/3464215>
- Simons, D.G. dkk. 1998. *Myofascial Pain and Dysfunction the Trigger Point Manual; volume 1. Upper half of body.* 2nd ed. Philadelphia: Williams & Wilkins
- Simons, D.G. dkk. 1992. *Myofascial Pain and Dysfunction the Trigger Point Manual; volume 2. The Lower Extremities.* 1st ed. Philadelphia: Williams & Wilkins
- Simons, D.G. & Mense, S. 2003. Diagnosis and therapy of myofascial trigger points. *Schmerz.* Dec; 17(6): 419 – 24. Retrieved Jan 14, 2014, from <http://www.ncbi.nlm.nih.gov/pubmed/14648314>

- Sivasankar, P. 2014. Effect of Postisometric Relaxation Technique Versus Conventional Transcutaneous Electrical Nerve Stimulation with Passive Stretching in Reducing Pain in Myofascial Pain Syndrome of the Upper Trapezius. *Int J Human & Social Studies*. Feb; 2(2): 16 – 19. Retrieved Jan 14, 2014, from <http://theijhss.com/february2014/3.HS1402-008.pdf>
- Suratun. dkk., 2006. *Klien Gangguan Sistem Muskuloskeletal*. Jakarta: EGC
- Thompson, B.C. dkk. 2007. Forearm blood flow responses to fatiguing isometric contractions in women and men. *American Journal of Physiology: Heart and Circulatory Physiology*. Jul; 293(1) : H805-H812. Retrieved Oct 12, 2014, from <http://ajpheart.physiology.org/content/293/1/H805>
- Tough, E.A. dkk. 2007. Variability of criteria used to diagnose myofascial trigger point pain syndrome—evidence from a review of the literature. *Clin J Pain*. March-April; 23(3): 278–86. Retrieved Oct 14, 2014, from http://mylearning.evidenceinmotion.com/pluginfile.php/23757/mod_forum/attachment/39983/Variability_of_criteria_used_to_diagnose_myofascial_trigger_pain_Tough_2007.pdf
- Tulaar, A. 2008. Neck and Back Pain, Vol 58, *Majalah Kedokteran Indonesia*. Mei; 58(8) : 169 - 180. Retrieved Jan 14, 2014, from <http://indonesia.digitaljournals.org/index.php/idnmed/article/view/585>
- Washington State. Department of Social & Health Services. *Range of Joint Motion Evaluation Chart*. Retrieved March 07, 2014, from http://www.dshs.wa.gov/pdf/ms/forms/13_585a.pdf
- Yoon, T. dkk. 2007. Mechanisms of fatigue differ after low- and high-force fatiguing contractions in men and women. *Muscle & Nerve*. Oct; 36(4) : 515-524. Retrieved Oct 12, 2014, from <http://www.ncbi.nlm.nih.gov/pubmed/17626289>