

The Effects of Functionality Level on Gait in Subjects with Low Back Pain

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Abstract : Low back pain is one of the most common health problem in public. Common symptoms that can be associated with low back pain include; pain, functional disability, gait disturbances. The aim of the study was to investigate the differences between disability scores and gait parameters in subjects with low back pain. Sixty participants are included in our study, (35 men, 25 women, mean age: 37.65 ± 10.02 years). Demographic characteristics of participants were recorded. Pain (visual analog scale) and disability level (Oswestry Disability Index(ODI)) were evaluated. Gait parameters were measured with Zebris-FDM-2 platform. Independent samples t-test was used to analyse the differences between subjects with under 40 points ($n=31$, mean age: 35.8 ± 11.3) and above 40 points ($n=29$, mean age: 39.6 ± 8.1) of ODI scores. Significant level in statistical analysis was accepted as 0.05. There was no significant difference between the ODI scores and groups' ages. Statistically significant differences were found in step width between subjects with under 40 points of ODI and above 40 points of ODI score ($p < 0.05$). But there were non-significant differences with other gait parameters ($p > 0.05$). The differences between gait parameters and pain scores were not statistically significant ($p > 0.05$). Researchers generally agree that individuals with LBP walk slower and take shorter steps and have asymmetric step lengths when compared with than their age-matched pain-free counterparts. Also perceived general disability may have moderate correlation with walking performance. In the current study, the patients classified as minimal/moderate and severe disability level by using ODI scores. As a result, a patient with LBP who have higher disability level tends to increase support surface. On the other hand, we did not find any relation between pain intensity and gait parameters. It may be caused by the classification system of pain scores. Additional research is needed to investigate the effects of functionality level and pain intensity on gait in subjects with low back pain under different classification types.

Keywords : functionality, low back pain, gait, pain

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