

## **The Association between Body Mass Index and Lumbar Lordosis Angle among Patients with Chronic Low Back Pain in Selected Teaching Hospitals within Colombo District, Sri Lanka**

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Chronic low back pain is a major complaint among Sri Lankan population regardless of age, gender, and ethnicity. It is very important to investigate on how Body Mass Index (BMI) influences on the changes in Lumbar Lordosis Angle (LLA) of chronic Low Back Pain (LBP) patients. The present study was aimed to investigate the association between BMI and LLA among patients with chronic low back pain in selected Teaching Hospitals within Colombo district, Sri Lanka. A descriptive cross sectional study was conducted using convenience sampling method. Demographic characteristics of the participants were gathered using a self-administrated questionnaire. The BMI was calculated by measuring the height and the weight of the respondents and LLA was measured through a lateral view photograph using KINOVEA motion analysis software. The data was statistically analysed using Statistical Package for Social Sciences software (SPSS), version 22. The study included 212 participants comprised of 124 females and 88 males within the age range of 20-60 years. The mean values of weight, height, BMI and LLA were 61.67 + 10.79 kg, 157.55 + 8.82 cm, 24.87 + 3.99 kgm<sup>-2</sup> and 36.52 + 9.33 degrees respectively. The study evaluated a statistically significant relationship between LLA with BMI ( $p=0$  and  $r=0.68$ ). The study concluded that Body Mass Index is associated with Lumbar Lordosis Angle among chronic Low Back Pain patients within Colombo district, Sri Lanka.

**Keywords:** *body mass index, lumbar lordosis angle, chronic low back pain*