# *THE CORRELATION OF BODY MASS INDEX AND SCOLIOSIS POSTURE DISORDER FACTORS TOWARDS LUMBAL SPINAL STENOSIS AT KARTINI HOSPITAL IN KARANGANYAR*

Farras Putri Khairiyah[1], Dita Mirawati[2], Alinda Nur Ramadhani[3], Asita Rohmah Mutnawasitoh[4]

farrasputri.fp@gmail.com

[1,2,3,4] D4 Fisioterapi Universitas 'Aisyiyah Surakarta

## *ABSTRACT*

*Background: Lumbar Spinal Stenosis (LSS) is a condition characterized by narrowing of the spinal canal, nerve root canal, or intervertebral foramen that may cause pain, weakness, and neurogenic claudication. High Body Mass Index (BMI) and scoliosis posture abnormality may be associated with increased LSS severity. Objective: to analyze the relationship between BMI and scoliosis posture abnormality with LSS at Kartini Hospital Karanganyar. Methods: a quantitative analytic observational study with a cross-sectional approach was conducted among 25 patients diagnosed with LSS. BMI was measured from body weight and height, scoliosis was assessed using the Adam's Forward Test and scoliometer, and LSS severity was obtained from medical records. Data were analyzed using Spearman Rank correlation. Results: most respondents were aged 55–70 years (76%), female (56%), had obesity class I–II (52%), had scoliosis (64%), and had moderate–severe LSS (72%). BMI was significantly correlated with LSS severity (r=0.471; p=0.018), while scoliosis assessed by Adam's Forward Test and Scoliometer showed a stronger significant correlation (r=0.736; p<0.001). Conclusion: BMI and scoliosis posture abnormality were significantly associated with LSS severity in the study respondents.*

*Keywords: Lumbar Spinal Stenosis; Body Mass Index; scoliosis; Spearman Rank*