Correlation Between Nutritional Status With Hand Grip Strength (HGS)

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ABSTRACT

Background: Nutritional status can be known using hand grip strength and screening for sarcopenia and will decrease during the aging process. Weak hand grip strength will have an impact on decreasing functional ability which will interfere with daily activities. Therefore, this study was conducted to prevent sarcopenia in older people and increase life expectancy.

Objective: This research aims to analyze the correlation between BMI, MUAC, and waist circumference with hand grip strength.

Methods: Data was collected in 2023 at the Elderly's Integrated Healthcare Center in Jomblang Village. Subjects in this study were 66 people with an age range from 30 - 86 years. This study was a cross-sectional study. Anthropometric measurements used digital body weight scales, microtoise, measuring tape, and handgrip dynamometer for measured hand grip strength. Data were analyzed by chi-square test using SPSS.

Results: The results showed that nutritional status based on BMI in subjects with overweight were 48 subjects (72,7%). Nutritional status based on MUAC were 48 subjects (72,6%) with normal category. Waist Circumference in subject with obesity were 46 subject (69,7%). There were 27 (40,9%) subjects with the strong category in hand grip strength. There was no significant relationship between BMI, MUAC, waist circumference with hand grip strength in this study.

Conclusion: There is no significant correlation between BMI, MUAC, and waist circumference on the subject.

Keywords: Body Mass Index (BMI); Mid-Upper Arm Circumference (MUAC); Waist Circumference; Hand Grip Strength (HGS)

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