

**FACULTY OF MEDICINE AND HEALTH SCIENCES  
MUHAMMADIYAH UNIVERSITY OF MAKASSAR**

**Andi Tenri Famori<sup>1</sup>, Moh. Asri Abidin<sup>2</sup>, Antariksa Putra Warno<sup>3</sup>**  
*Undergraduate Students, Faculty of Medicine and Health Sciences,  
Muhammadiyah University of Makassar, Class of 2021*

**Email:** [anditf77@gmail.com](mailto:anditf77@gmail.com)

<sup>1</sup>*Student Of Medical Education, Faculty Of Medicine And Health Sciences  
Universitas Muhammadiyah Makassar*

<sup>2</sup>*Departement Of Orthopaedics, Faculty of Medicine and Health Sciences,  
Muhammadiyah University of Makassar*

<sup>3</sup>*Departement Of Clinical Pathology, Faculty of Medicine and Health Sciences,  
Muhammadiyah University of Makassar*

**“THE RELATIONSHIP BETWEEN BOWING MOVEMENTS IN THE 4  
RAKAAT DHUHA PRAYER AND HAMSTRING MUSCLE FLEXIBILITY AT  
THE DARUL ARQAM MUHAMMADIYAH GOMBARA ISLAMIC  
BOARDING SCHOOL IN MAKASSAR.”**

**ABSTRACT**

**Background:** Researchers at the Darul Arqam Muhammadiyah Gombara Islamic Boarding School in Makassar intend to answer the question, ‘How well do the students at this boarding school bow their bodies during the four-rakaat Dhuha prayer?’ by looking at how loose their hamstring muscles are. Many people assume that rukuk, which requires them to bend over while staying in the correct position, can improve their overall health and flexibility. A lack of physical activity can cause the hamstring muscles, which play a role in the flexibility and mobility of the lower body, to become stiff.

**Objective:** To find out if there is a relationship between the flexibility of the hamstring muscles and the bowing movements in the 4-rakat dhuha prayer of the students at the Darul Arqam Muhammadiyah Gombara Islamic Boarding School in Makassar.

**Results:** Respondents aged 16 years  $f = 7$  (14.6%), 17 years  $f = 35$  (72.9%), and 18 years  $f = 6$  (12.5%). Rukuk movement assessment  $f = 44$  (91.7%) good rukuk movement, while  $f = 4$  (8.3%) poor rukuk movement. The hamstring muscle flexibility score,  $f = 1$  (2.1% of the total) has very good flexibility,  $f = 26$  (54.2%) has good flexibility,  $f = 16$  (33.3%) has moderate flexibility,  $f = 5$  (10.4% of the total) has very poor flexibility. Chi-square test results ( $P\text{-value} = 0.025 < 0.05$ ).

**Conclusion:** The results of the study show that hamstring muscle flexibility is significantly related to the bowing movement among santri at the Darul Arqam Muhammadiyah Gombara Islamic Boarding School in Makassar.

**Keywords:** Dhuha prayer, rukuk movement, hamstring flexibility, santri, physical activity