Relationship Between Quadricep Angle with Body Weight, Body Height and Gender of Sri Lankan National Level Athletes

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Injuries are caused by external and intrinsic sources. Through examining the correlation between gender, body height, and body weight with Quadricep (Q) angles among National level athletes in Sri Lanka, this study sought to establish the association of intrinsic components. The Institute of Sports Medicine in Colombo, Sri Lanka, did this case study. National-level male and female athletes with injuries to their lower limbs (N=17) and without injuries (N=16) made up the study sample. Participants in recent acute lower limb injuries were not allowed to participate in the study. Before starting the tests and measurements, all the athletes gave their agreement after being informed of the investigation's process. A stadiometer, electronic weighing scale, and goniometer were used to measure both limbs' body height, weight, and Q angle. In the year 2022, data were gathered from January to February. The findings showed no evidence of a difference between the Q angle of injured (Injured limb P= 0.776, Non-injured limb P= 0.739) and non-injured (Right P= 0.974, Left P = 0.786) athletes with respect to gender. Despite having injuries, there is a definite negative link between both genders' body height and the Q angle. While there is no significant difference in the mean Q angle between the injured and uninjured limbs of males (P=0.171), there is a significant difference in the mean Q angle between the injured and non-injured limbs of females (P = 0.013). We can create the conclusion that height affected the size of the Q-angle. Due to their higher Q angles than men, females are more likely to have sustain lower limb injuries than men.

Keywords: Non-Injured Lower Limb, Goniometer, Lower Limb Injuries