

mixed martial arts, Thai Boxing fundamentals have already been learned and are close to being mastered. However, only amateur mixed martial arts athletes were used in this study instead of elite martial arts or actual Thai Boxing athletes. Therefore, it can be derived that elite mixed martial arts athletes have more refined movements and may be more efficient in regards to their technique in comparison with amateur mixed martial arts athletes. However, since elite mixed martial arts or Thai Boxing athletes were not available for this study, the results of this study may only be applicable to amateur mixed martial arts athletes.

5. Conclusions

This study provides an important understanding on the kinematics of the Thai boxing clinching positions in the dominant (right) leg for both the double collar-tie and double underhook techniques. Ten amateur mixed martial arts athletes participated in this study and each athlete performed six knee strikes in each clinching position. The results showed a statistical significant difference at the hip joint angles between both clinching positions, but there were no significant differences between the knee and ankle between both clinching positions. There were no statistical differences in the joint angular velocity of the hip, knee, and ankle. For the joint angular accelerations, there was a significant statistical difference observed only for the knee and ankle joints and within both clinching positions, there was a statistically significant correlation at the hip and knee joint angles. Lastly, there was a significant correlation at the knee joint angle, hip and knee angular velocities, and hip angular acceleration between both clinching positions.

This study indicates that the double collar clinching position technique has a lesser hip flexion angle than the double underhook clinching technique. Thus, the double collar-tie clinching technique may be more suitable for striking a lower target in relation to the striker's knee position. Interestingly, the significant statistical difference for knee and ankle joint acceleration suggests that both joints accelerate at a similar rate in both clinching positions while the hip does not. Lastly, this study may suggest the importance of strength training and flexibility at the hip and knee joints. Future studies are warranted to analyze the non-dominant leg to have a comprehensive understand about the Thai Boxing clinch.

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