## Characteristics of Handgrip (Kumi-Kata) Profile of Georgian Elite Judo Athletes

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**Abstract :** Objective: The aim of this study was to investigate the characteristics of Kumi-kata in elite judokas and characterize the kinematic and temporal parameters of different types of handgrip (HG). Method: fourteen participated in this study male athlete  $(23.5\pm2.61 \text{ years}; 1.81\pm0.37 \text{ 0 m}; 87.25\pm22.75 \text{ kg})$ , members of the Georgian Judo team. To characterize the dominance and types of kumi-kata used, videos of international competitions from each athlete were analyzed, and to characterize kinematic and temporal parameters and handgrip, and the volunteers pressed a digital dynamometer with each hand for 30 seconds(s) after a visual signal. Results: The values of  $0.26\pm0.69$ s and  $0.31\pm0.03$ s for reaction time were obtained, respectively, in the full grip and pinch grip;  $19.62\pm18.83$ N/cm/s and  $6.17\pm3.48$ N/cm/s for the rate of force development;  $475,21\pm101,322$ N and  $494,65\pm112,73$  for the FDR;  $1,37\pm0,521$ s and  $1,45\pm0,824$ s for the time between the force onset to the TFP; and  $41,27\pm4,54$ N/cm/s and  $45,16\pm5,64$ N/cm/s for the fall index, in the dominant hand. There was no significant difference between hands for any variable, except for the dominance of Kumi-kata (p<0.05) used in combat. Conclusion: The dominance of application of the Kumi-kata is a technical option, as it does not depend on the kinetic-temporal parameters of the handgrip.

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Keywords : hand grip, judo, athletes, Kumi-Kata

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