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Identifying Common Sports Injuries in Karate and Presenting a Model for Preventing Identified Injuries (A Case Study of East Azerbaijan, Iranian Karatekas)

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Abstract : Due to the high likelihood of injuries in karate, karatekas' injuries warrant special treatment. This study explores the prevalence of karate injuries in East Azerbaijan, Iran and provides a model for karatekas to use in the prevention of such injuries. This study employs a descriptive approach. Male and female participants with a brown belt or above in either control or non-control styles in East Azerbaijan province are included in the study's statistical population. A statistical sample size of 100 people was computed using the tools employed (smartpls), and the samples were drawn at random from all clubs in the province with the assistance of the Karate Board in order to give a model for the prevention of karate injuries. Information was gathered by means of a survey that made use of the Standard Questionnaire for Australian Sports Medicine Injury Reports. The information is presented in the form of tables and samples, and descriptive statistics were used to organise and summarise the data. Control and non-control independent t-tests were conducted using SPSS version 20, and structural equation modelling (pls) was utilised for injury prevention modelling at a 0.05 level of significance. The results showed that the most common areas of injury among the control groups were the upper limbs (46.15%), lower limbs (34.61%), trunk (15.38%), and head and neck (3.84%). The most common types of injuries were broken bones (34.61%), sprain or strain (23.13%), bruising and contusions (23.13%), trauma to the face and mouth (11.53%), and damage to the nerves (69.69%). Uncontrolled committees are most likely to sustain injuries to the head and neck (33.33%), trunk (25.92%), upper limbs (22.22%), and lower limbs (18.51%). The most common injuries were to the mouth and face (33.33%), dislocations and fractures (22.22%), aspirin and strain (22.22%), bruises and contusions (18.51%), and nerves (70%), in that order. Among those who practice control kata, injuries to the upper limb account for 45.83%, the lower limb for 41.666%, the trunk for 8.33%, and the head and neck for 4.166%. The most common types of injuries are dislocations and fractures (41.66 per cent), aspirin and strain (29.16 per cent), bruising and bruises (16.66 per cent), and nerves (12.5%). Injuries to the face and mouth were not reported among those practising the control kata. By far, the most common sites of injury for those practising uncontrolled kata were the lower limb (43.74%), upper limb (39.13%), trunk (13.14%), and head and neck (4.34%). The most common types of injuries were dislocations and fractures (34.82%), aspirin and strain (26.08%), bruises and contusions (21.73%), mouth and face (13.14%), and nerves. Teaching the concepts of cooling and warming (0.591) and enhancing the degree of safety in the sports environment (0.413) were shown to play the most essential roles in reducing sports injuries among karate practitioners of controlling and uncontrolled styles, respectively. Use of common sports gear (0.390), Modification of training programme principles (0.341), Formulation of an effective diet plan for athletes (0.284), Evaluation of athletes' physical anatomy, physiology, chemistry, and physics (0.247).

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