PREDICTION OF VOLLEYBALL PLAYING ABILITY FROM SELECTED ANTHROPOMETRIC, PHYSICAL FITNESS, PHYSIOLOGICAL AND PSYCHOLOGICAL VARIABLES AMONG NATIONAL WOMEN VOLLEYBALL TEAM IN SRI LANKA

Jayarathne S.G.T.A.^{1*}, Jonition S.¹ and Rathnamudali K.R.D.C.² ¹Department of Sports sciences and Physical Education, Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka, Sri Lanka ²National Volleyball Federation, Sri Lanka *sgtanushka@gmail.com

Volleyball is National game of Sri Lanka. Sri Lankan Women Volleyball team has not achieved to higher position in world rank. Therefore this study was conduct to find out the Anthropometric, Physical Fitness, Physiological and Psychological characteristics were effect for the playing ability of National Women volleyball players of Sri Lanka. To achieved this purpose the study sample was fourteen (n = 14). Players were selected by using multistage sampling technique reference to two setters, two liberos, four blockers and six attackers from thirty eight (N = 38)National volleyball pool in Sri Lanka. The age of the subject were ranged from 19 to 36 years old. The volleyball playing ability was selected as dependent variable and it was assessed by coaches rating. The following anthropometric measurement measured skin fold calipers, tapes, scale and stadiometer. Altogether twenty five factors were measured. (skin fold measurements were, triceps, bicep, subscapular, suparliac, abdominal, thigh, calf, body mass components as BMI, height, weight, girth measurements as waist, hip, fore arm, arm relaxed, arm flexed, wrist, thigh, calf, ankle, chest. Length measurements as, hand, arm, fore arm, leg length, and foot length) physical fitness as muscular endurance was measured by push up test, cardiovascular endurance was measured by thousand meter test, flexibility was measured by sit & reach test, agility was measured by agility run test. physiological variables (Maximum Heart Rate, Resting Heart Rate, VO2 max) psychology measured by using Physical Activity Sport Anxiety (PASAS) Scale selected as independent variables and tested by standardized procedure. To examine the prediction relationship between performance ability and selected independent variables analyzed by two cluster membership, Pearson correlation with SPSS 20 software was calculated (P < 0.05). The anthropometric result of the present study showed that there was significant effect of the playing ability except age for service playing ability, subscapular for setting playing ability, hip, fore arm girth for attacking playing ability, age, weight, arm relax & thigh girth for blocking playing ability. The data of the Physical fitness significantly effect (p < 0.05) except the muscular endurance. Physiological factors and the Psychology significantly effect for the playing ability. There was an impact of anthropometric, Physical Fitness, Physiology and psychology for playing performance of National Women Volleyball team in Sri Lanka.

Keywords: Anthropometric, Playing ability, Physical, Physiological, Psychology