

EFFECTIVENESS OF A MUSCLE STRENGTHENING PROGRAM IN A GROUP OF DISABLED MILITARY PERSONNEL – A PRELIMINARY STUDY

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During the 30 year civil war in Sri Lanka a large number of soldiers were injured and their disabilities have changed lifestyle factors and reduced their daily physical activities. This in turn is correlated with lower muscle strength and may lead to a greater degree of disability. The objectives of this study were to evaluate muscle strength in a group of soldiers with upper and lower limb disabilities and assess the effectiveness of a muscle strengthening programme.

Altogether 159 injured soldiers were recruited for this study. Muscle strength was assessed in the shoulder (flexors, extensors, abductors) elbow (flexors, extensors), wrist (flexors, extensors), hip (flexors, extensors, abductors) knee (flexors, extensors), and ankle (dorsiflexors, plantar flexors) using the Medical Research Council scale (MRC/0-5).

Our results indicate that of these 159 subjects, 27 had muscle strengths in grade 5, 64 in grade 4, 39 in grade 3, 16 in grade 2 and 13 in grade 1. 27 subjects from those with muscle strength of grades 4 and below were recruited for a regular muscle strengthening schedule for a period of 3 months. Reassessment of the muscle strength was done at the end of this period. In the reassessment group 11 (40.74%) showed an improvement of one grade and 4 (11.11%) showed an improvement of two grades at the end of the muscle strengthening program.

Thus, a regular muscle strengthening program may improve the muscle strength of disabled military soldiers which in turn may lead to an improvement of their overall condition.