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EFFECT OF CIRCUIT TRAINING PROGRAM USING OBSTACLES ON IMPROVING BALANCE AMONG ELDERLY POPULATIONS.

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Background: According to the world health organization global report on fall prevention people aged 65 years and above fall about 28% - 35% in each year and this proportion increases as age and frailty level increases. The prevalence of fall in India above the age of 60 years reported to range 14% - 53% Balance impairment is a common problem among the elderly population and is a major contributing factor to falls, injuries, and loss of independence. Exercise interventions, particularly circuit training programs involving obstacle-based activities, have been found to enhance strength, coordination, and postural control.

Purpose: A study to find out the effectiveness of circuit training program on improving balance among elderly population.

Methods & Materials: A quasi-experimental study design was adopted, involving 30 elderly participants aged 60 years and above from selected community centers. Participants underwent a six-week circuit training program consisting of obstacle-based exercises designed to challenge dynamic and static balance. Balance performance was assessed before and after the intervention using the POMA. Data were analyzed using paired t-tests to compare pre- and post-intervention scores.

Result: The result of the study indicates that within the group analysis of POMA shows extremely significant improvement in the group. The obtained t-value of POMA is 12.34 demonstrates a statistically significant reduction in balance impairment following the intervention. The p value of POMA is 0.0001 consider extremely significant.

Conclusion: A circuit training program incorporating obstacle-based exercises has a significant positive effect on improving balance among the elderly population. The inclusion of dynamic and functional tasks, such as stepping over, around, and between obstacles, enhances postural control and coordination by challenging the sensory and motor systems. These activities stimulate proprioception, muscle strength, and reaction time-key components required to maintain balance and prevent falls in older adults.

Keywords: Circuit interval training, Balance impairment among elderly population, Postural control, Berg Balance Scale, Performance Oriented Mobility Assessment,