



Mid Atlantic Regional Chapter of the

American College of Sports Medicine

Annual Scientific Meeting, November 4th- 5th, 2017
Conference Proceedings

International Journal of Exercise Science, Issue 9, Volume 6



Promoting Exercise Performance in Adults with Intellectual Disabilities Through Visual Schedules and Systematic Prompting

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Individuals with intellectual disabilities (ID) have lower levels of physical activity (PA) and muscle strength compared to general population (Frey et al., 2008). Research provides evidence that carefully structured progressive resistance training has the potential to improve muscle strength in this population (Shields et al., 2008). However, many available community PA opportunities are not accessible and appropriate for individuals with ID. Even though ACSM (2009) requires that a proper form of exercises be learned before resistance is progressively increased, detailed information on the strategies that can be used to achieve task mastery and guarantee high levels of performance in individuals with ID is lacking in current studies. Two effective instructional strategies to promote task acquisition in therapeutic fields have been visual activity schedules (VAS) (Koyama & Takanori, 2011) and the system of least to most prompts (SLMP) (Van Laarhoven, 2007). **PURPOSE:** To examine the degree to which VAS and SLMP promotes mastery of muscle-strengthening exercises in adults with ID, and how it generalizes to a community setting. **METHODS:** This study utilized a multiple-baseline-across-participants single-subject design with a convenience sample of three adults with moderate ID. The dependent measure was the percentage of exercise steps (2 upper-body and 2 lower-body) completed without prompting. Secondary analyses examined the level of prompting (i.e., verbal, video, gestural, physical) needed to promote mastery. Mastery was defined as achieving at least 90% of all exercise steps. **RESULTS:** The staggered data demonstrated all participants achieved mastery of the four exercises in a community-based setting within eight training sessions (Upper-Body Exercises: M gain = 24.34, SD = 3.11; Lower-Body Exercises: M gain = 26.70, SD = 5.67). The mastery was maintained two weeks after the SLMP withdrawal and generalized into a YMCA fitness room. Stability of performance was achieved in all participants within eight training sessions. Using the percentage of non-overlapping data (Scruggs et al., 1987), the treatment was considered very effective for all participants and exercises (all were 1.00). **CONCLUSIONS:** The VAS and SLMP were effective in promoting exercise mastery in three adults with moderate ID.