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題目 (Title):

一位疑似發展協調不良兒童之肌力訓練
(Strength Training for a Child With Suspected Developmental Coordination Disorder)

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背景 (Background):

發展協調不良兒童有前饋動作控制不良的困難，並且使用不同的代償策略。
(Children with developmental coordination disorder (DCD) demonstrate difficulty
with feedforward motor control and use varied compensatory strategies.)

目的 (Purpose):

檢驗一個動作控制不良的兒童，經過肌力訓練後於粗大動作功能的改變。
(To examine gross motor function changes following strength training in a child with
motor control difficulties.)

個案描述 (Case Description):

一個 6 歲 11 個月大的女生，有運動不良及低張力的問題，並且呈現和發展協調
不良診斷相符的動作發展遲緩。
(A girl aged 6 years 11 months, with apraxia and hypotonia, and demonstrating
motor delays consistent with DCD.)

介入 (Intervention):

運用一套 “通用運動套組(Universal Exercise Unit)” 裝置來進行共 24 節的肌力訓練課程。

(Twenty-four strength training sessions were completed using a Universal Exercise Unit.)

成果 (Outcomes):

兒童經訓練後在「布魯茵克斯—歐西瑞斯基動作精練度測驗第二版」及「加拿大職能表現測量」的分數有明顯進步，並且在「發展協調不良問卷 2007 年修正版」的得分增加，已不再屬於疑似發展協調不良的範圍。但在肌力方面並沒有統計顯著的改變。

(Postintervention scores significantly improved on the Bruininks-Oseretsky Test of Motor Proficiency, Second Edition, and the Canadian Occupational Performance Measure scores and raised the Developmental Coordination Disorder Questionnaire, Revised 2007, scores above the range where DCD is suspected. Nonsignificant changes in strength were observed.)

討論 (Discussion):

以段落式練習方式進行單一關節肌力訓練後，在兒童的功能及上肢操作協調度上有顯著進步。動作技巧的增加可能是來自於有效的運用前饋控制及穩定度的增加。肌力訓練中未納入需使用動量的練習技巧，這可解釋兒童在動作或移行方面並無顯著改變。

(Improved function and significant gains in manual coordination were observed following blocked practice of isolated, simple joint movements during strength training. Improved motor skills may be because of effective use of feedforward control and improved stabilization. Strength training does not rehearse skills using momentum, explaining nonsignificant changes in locomotor or locomotion areas.)

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