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題目 (Title):

兩種座位系統應用於一位有嚴重脊椎側彎的腦性麻痺青少年的效果
(Two Seating Systems' Effects on an Adolescent With Cerebral Palsy and Severe Scoliosis)

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背景與目的 (Background and Purpose):

比較兩種在學校使用之座位系統，對於一位 19 歲患有神經性脊椎側彎的腦性麻痺年輕男性的生理功能、溝通開關的開啟及反應正確性的效果。
(To compare physiological functioning, communication switch activation, and response accuracy in a 19-year-old young man with quadriplegic cerebral palsy and neurological scoliosis using 2 seating systems within the school setting.)

方法 (Methods):

本研究採用單一受試者兩種治療交替設計：基準期使用標準化的平面椅墊(A1)，客製化的塑型椅背併用原本的座椅(B)，再回到基準期 (A2)。成效的測量包括血氧飽和度(SaO2)、心跳率(HR)、呼吸速率(RR)、體溫(BT)、開啟溝通開關的時間及反應正確性。
(Prospective single-subject alternating treatment design with 2 conditions: baseline phase with standard planar inserts (A1), custom-molded back with original seat (B), and return to baseline (A2). Measures included oxygen saturation (SaO_2), heart rate

(HR), respiration rate (RR), body temperature (BT), processing time to activate switches, and response accuracy.)

結果 (Results):

血氧飽和度(SaO2)由“窘迫”增加至”正常”且變動程度降低。心跳率(HR)、呼吸速率(RR)和體溫(BT)在使用客製化的塑型椅背時的變動程度降低。開啟溝通開關的時間雖降低但變動程度增加，這是受到個案動機的影響。反應正確性略則有進步。個案自述於社交上與人接近及主動的溝通增加。

(SaO_2 levels increased from “distressed” to “normal”; variability decreased. HR, RR, and BT fluctuations decreased with the custom-molded back. Processing time decreased with increased variability, affected by subject's motivation; accuracy improved slightly. Reported social approachability and student-initiated communication increased.)

結論 (Conclusions):

使用客製化的塑型椅背可使血氧飽和度增加及心跳率、呼吸速率和體溫的變動程度降低。圖示資料有助於決定座椅系統於複雜個案的效果。

(SaO_2 increased and HR, RR, and BT fluctuations decreased with a custom-molded back. Graphing data may help determine seating effect with complex clients.)