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題目 (Title):

脊柱裂嬰兒:跑步機跨步時對情境與徒手感覺擴增之立即反應 (Infants With Spina Bifida: Immediate Responses to Contextual and Manual Sensory Augmentation During Treadmill Stepping)

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目的 (Purpose):

本研究探討脊柱裂嬰兒於跑步機試驗時對合併感覺強化與徒手協助之立即動作反應

(This study examined the effect of combined sensory enhancements and manual assistance on the immediate motor responsiveness of infants with spina bifida during treadmill trials.)

方法 (Methods):

6 位脊柱裂嬰兒,年齡介於 4 至 9.5 個月,損傷階層涵蓋第四腰椎至第三薦椎, 於為期 3 週,每週 1 次至實驗室接受 3 回隨機順序之強化感覺測試。感覺強化包 括給予單一或合併之視覺流向、不承重、承重、與摩擦力,以及於 2 種跑步機速 度跨步測試時給予徒手協助。依變項包括跨步頻率與整體嬰兒活動情形。

(Six infants with spina bifida, aged 4 to 9.5 months, with lesion levels ranging from L4 to S3 were tested in each of 3 randomly ordered sets of enhanced sensory conditions across 3 weekly visits to the laboratory. Sensory enhancements included

visual flow, unloading, load, and friction, presented in single and combined applications, as well as a set of trials with manual assistance for stepping at 2 treadmill belt speeds. Dependent variables included step frequencies and overall infant activity.)

結果 (Results):

摩擦合併承重是最顯著之情境感覺強化。徒手協助於慢速時亦能有效增加嬰兒之跨步。

(Friction+load was the most salient of the contextual sensory enhancements. Manual assistance at the slower speed was also effective at increasing infant stepping.)

結論 (Conclusions):

增加站立時之重心位移與擺盪期垂直離地之感覺強化需進一步研究。 (Sensory enhancements that increase stance excursion and vertical clearance during swing need further study.)

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