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題目 (Title):

兒童在上下斜坡期間的步態時間和空間特徵及其變化性
(Child Temporal-Spatial Gait Characteristics and Variability During Uphill and Downhill Walking)

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目的 (Purpose):

提供證據性的成熟步態，舉例來說一般兒童發展的重要預測指標是指有能力行走於不同高度的平面上。因此，本篇研究的目的是比較兒童和成人在斜坡上行走時所使用的步態策略。

(Gait maturation, evidenced in, for example, the ability to walk over nonlevel surfaces, is an important indicator of typical development in children. Therefore, the purpose of this study was to compare the walking strategies used by children and adults during hill walking.)

方法 (Methods):

比較 30 位兒童(年齡 3.5-5.5 歲)和 30 位成人在平面上和 15 度斜坡上行走時的時間和空間步態參數和這些參數的試驗係數變化。

(Temporal-spatial gait parameters and trial-to-trial coefficient of variation of these parameters were compared between 30 children (aged 3.5–5.5 years) and 30 adults during level and 15° hill walking.)

結果 (Results):

相較於成人組，兒童組在所有情況下，其變異係數都大於成人組。而且，特別是在下坡期間，兒童組變異係數，顯著的增加。

(Compared with the adult group, the child group coefficient of variation was greater during all conditions. Furthermore, unique to the child group, there was a significant increase in variability during downhill walking.)

結論 (Conclusions):

從現行的研究結果顯示，兒童在 3.5 到 5.5 歲之間，尚未表現出成熟的步態，且其行走於下坡平面時，會增加其跌倒的風險。因此，探討和訓練兒童步態時，需特別留意其步態變異性和行走於非地上的安全性。

(It is evident from the current results that children aged 3.5 to 5.5 years do not yet exhibit a mature gait and that downhill walking may increase fall risk. Attention should be given to gait variability and nonlevel walking when investigating or training children's gait.)