

原作者及出處 (Original):

Chen, Yu-Ping., Lee, Shih-Yu., Howard, Ayanna M.
Pediatric Physical Therapy. 26(3):289-300, Fall 2014.
doi: 10.1097/PEP.0000000000000046

題目 (Title):

虛擬實境應用於腦性麻痺兒童的上肢功能成效:統合分析
(Effect of Virtual Reality on Upper Extremity Function in Children With Cerebral Palsy:
A Meta-analysis)

翻譯者 (Translator):

黃維彬 (Wei-Pin Huang, PT, MS)
弘光科技大學專技副教授 台中 台灣
(Associate Professor Rank Specialist, Department of Physical Therapy, College of
Medicine, Hungkuang University, Taichung, Taiwan)

校閱者 (Reviewer):

廖華芳 (Hua-Fang Liao)
台灣大學醫學院 物理治療學系暨研究所 兼任副教授 台北 台灣
(Adjunct Associate Professor, School of Physical Therapy, College of Medicine ,
National Taiwan University, Taipei, Taiwan)

目的 (Purpose):

系統性文獻回顧，以分析虛擬實境應用於腦性麻痺兒童的上肢功能訓練之成效，
以及探究虛擬實境之成效與兒童特質、介入計畫的關係。
(To systematically examine the effect of virtual reality (VR) on upper extremity (UE)
function in children with cerebral palsy (CP) and assess the association among VR
effects and children's characteristics and an intervention protocol.)

方法 (Methods):

系統性於 PubMed, CINAHL, Cochrane, and PsycINFO 等資料庫搜尋到 2013 年六月
時之文獻，即有關使用虛擬實境作為腦性麻痺兒童的介入方法及上肢功能成果評
量的文章。
(A systematic literature search was conducted in PubMed, CINAHL, Cochrane, and
PsycINFO up to June 2013. Research studies involving children with CP that used VR
as the intervention method and UE outcome measures were included.)

結果 (Results):

本研究共選出 14 篇文章，包括了 3 篇隨機控制試驗及 11 篇病例報告。整體來講，比較治療前後的效果，虛擬實境可提供高的效應量($d = 1.00$)。於子群組的分析結果時顯示，較年幼的兒童於下述情形有較佳的成效，即到宅或於實驗室接受虛擬實境，以及程式產生的虛擬實境介入。

(The search yielded 14 research articles, including 3 randomized controlled trials and 11 case series. Overall, VR provided a strong effect size ($d = 1.00$) when comparing pre- and postintervention. In subgroup analyses, younger children receiving home-based or laboratory-based VR and using an engineer-built VR system showed better improvement.)

結論與啟示 (Conclusions and Implications):

在用來改善腦性麻痺兒童上肢功能時，虛擬實境為一可行的工具。然而，仍需較多嚴謹研究設計的文章以達到一致性建議。

(Virtual reality is a viable tool to improve UE function in children with CP. However, a more vigorous research design is needed to make a conclusive recommendation.)

Lippincott Williams & Wilkins, a business of Wolters Kluwer Health and its affiliates take no responsibility for the accuracy of the translation from the published English original and are not liable for any errors which may occur²

威科集團醫療衛生業務部門之一：Lippincott Williams & Wilkins，及威科集團醫療衛生業務部門的其他附屬機構不承擔因從英文原文翻譯的準確性而導致的任何責任，也不承擔由於翻譯錯誤而導致的任何法律責任。