

系所組別： 職能治療學系

考試科目： 臨床生理職能治療學

考試日期：0226 · 節次：1

1. 解釋名詞：(每題 5%，共 25%)
 - (1). self awareness
 - (2). kinesthesia
 - (3). cubital tunnel syndrome
 - (4). Guillain-Barré syndrome
 - (5). autonomic dysreflexia
2. 試述「職能功能模式」(Occupational Functioning Model) 的簡要內容，並說明如何應用此模式對第七節頸椎完全損傷之 18 歲尚就學的脊髓損傷個案進行相關的評估。(10%)
3. 試述瑞囊認知功能第六級 (Rancho Level VI) 的頭部外傷個案的主要認知問題；並說明職能治療師如何以：(1) 由下而上模式 (bottom-up approach)、(2) 由上而下模式 (top-down approach)，以及 (3) 動態式模式 (dynamic interaction approach) 評估個案的認知問題。請列舉一項認知問題說明之，並簡短評論其優缺點。(20%)
4. 試就以下個案的情況，擬定三項你認為最重要需優先處置的職能治療目標和介入計畫；並說明所依據的理論或參考架構，以及你所運用的臨床推理。(15%)

Mrs A is an 74-year-old lady and had a left-sided stroke 5 years ago. She lives in a nursing home and does nothing all day. Mrs A can only walk short distances indoors; she no longer climbs the stairs and has difficulty standing up from her chair or toilet. She has hemiparesis of her right side, with her right upper limb being worse than her right lower limb. Consequently she needs assistance with all transfer, washing and dressing. She is also unable to hold a pen and write with her right (dominant) hand. Eating food is a problem for her as she has difficulties manipulating her right hand. Mrs A has also memory problems, especially prospective memory, which she finds highly frustrating and becomes depressed and withdrawn. In addition, there are few families or friends to visit Mrs A.

(背面仍有題目,請繼續作答)

5. 請閱讀下列研究摘要，並回答問題。(15%)

Disability and Rehabilitation, 2011; 33(23-24): 2322-2328

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RESEARCH PAPER

Effects of 5 minutes of neck-muscle vibration immediately before occupational therapy on unilateral spatial neglect

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Abstract

Purpose. To evaluate the effects of neck-muscle vibration for 5 min before occupational therapy (OT) on unilateral spatial neglect (USN).

Method. In this multiple-baseline design study for 6 weeks (A₁-B-A₂ design: A₁, A₂: conventional OT without neck-muscle vibration, B: neck-muscle vibration before OT together with conventional OT), we examined 11 right brain-damaged patients in the post-acute phase of stroke who showed USN. Sessions A₁ and A₂: conventional OT for 40 min once daily for 5 days a week. Session B: the left posterior neck muscles of the patient were subjected to vibration for 5 min, without confirming the appearance of a kinaesthetic illusion, immediately before OT, and then the same OT programme as in sessions A₁ and A₂ was performed. Each session lasted 2 weeks. USN and activities of daily living (ADL) were evaluated at 2-week intervals by the Behavioural Inattention Test (BIT) and Functional Independence Measure (FIM), respectively.

Results. Significant increases in the total scores in both the conventional subtest and behavioural subtest of the BIT were only seen during session B. FIM scores increased significantly during both sessions A₁ and B.

Conclusions. The application of neck-muscle vibration before OT may have positive effects on USN, but the specific effect on the improvement of ADL is not clear.

(1). 請說明本研究的實驗設計。(5%)

(2). 請說明本研究的主要結果，並試述其與臨床應用的關連性。(10%)

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6. 請閱讀下列研究摘要，並回答問題。(15%)

Ietswaart, M., Johnston, M., Dijkerman, H. C., Joice, S., Scott, C. L., MacWalter, R. S., & Hamilton, S. J. (2011). **Mental practice with motor imagery in stroke recovery: randomized controlled trial of efficacy.** *Brain*, 134, 1373-1386.

This randomized controlled trial evaluated the therapeutic benefit of mental practice with motor imagery in stroke patients with persistent upper limb motor weakness. There is evidence to suggest that mental rehearsal of movement can produce effects normally attributed to practising the actual movements. Imagining hand movements could stimulate restitution and redistribution of brain activity, which accompanies recovery of hand function, thus resulting in a reduced motor deficit. Current efficacy evidence for mental practice with motor imagery in stroke is insufficient due to methodological limitations. This randomized controlled sequential cohort study included 121 stroke patients with a residual upper limb weakness within 6 months following stroke (on average <3 months post-stroke). Randomization was performed using an automated statistical minimizing procedure. The primary outcome measure was a blinded rating on the Action Research Arm test. The study analysed the outcome of 39 patients involved in 4 weeks of mental rehearsal of upper limb movements during 45-min supervised sessions three times a week and structured independent sessions twice a week, compared to 31 patients who performed equally intensive non-motor mental rehearsal, and 32 patients receiving normal care without additional training. No differences between the treatment groups were found at baseline or outcome on the Action Research Arm Test (ANCOVA statistical $P=0.77$, and effect size partial $\eta^2=0.005$) or any of the secondary outcome measures. Results suggest that mental practice with motor imagery does not enhance motor recovery in patients early post-stroke. In light of the evidence, it remains to be seen whether mental practice with motor imagery is a valid rehabilitation technique in its own right.

- (1). 試述本研究的動機和主旨。(5%)
- (2). 請說明本研究的主要結果和臨床應用價值(5%)
- (3). 試評論本研究，包括優點及主要限制。(5%)