

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. 請說明「動態系統理論(dynamic systems theory)」及「生態理論(ecological approach to perception and action)」的基本假設，及其如何影響當代生理疾病職能治療的評估與介入模式。(10%)

2. 請閱讀下列研究摘要，並回答問題。

Ross, P. E., Ponsford, J. L., Di Stefano, M., & Spitz, G. (2015). Predictors of on-road driver performance following traumatic brain injury. *Archives of physical medicine and rehabilitation*, 96(3), 440-446.

**Abstract**

**OBJECTIVE:**

To examine assessment outcomes and factors associated with passing an occupational therapy (OT) on-road driver assessment after traumatic brain injury (TBI).

**DESIGN:**

Retrospective analysis of outcomes of on-road driver assessment completed by persons with TBI over an 8-year period.

**SETTING:**

Inpatient and outpatient rehabilitation hospital.

**PARTICIPANTS:**

A consecutive sample of individuals (N=207) with mild to severe TBI who completed an on-road driver assessment and were assessed at least 3 months post-injury.

**INTERVENTION:**

Not applicable.

**MAIN OUTCOME MEASURE:**

Outcome of on-road driver assessment.

**RESULTS:**

Of the drivers with TBI, 66% (n=137) passed the initial on-road driver assessment (pass group), whereas 34% (n=70) required on-road driver rehabilitation and/or  $\geq 1$  on-road assessment (rehabilitation group). After driver rehabilitation, only 3 participants of the group did not resume driving. Participants who were men, had shorter posttraumatic amnesia (PTA) duration, had no physical and/or visual impairment, and had faster reaction times were significantly more likely to be in the pass group. In combination, these variables correctly classified 87.6% of the pass group and 71.2% of the rehabilitation group.

**CONCLUSIONS:**

PTA duration proved to be a better predictor of driver assessment outcome than Glasgow Coma

Scale score. In combination with the presence of physical/visual impairment and slowed reaction times, PTA could assist clinicians to determine referral criteria for OT driver assessment. On-road driver rehabilitation followed by on-road reassessment were associated with a high probability of return to driving after TBI.

(2-1). 請問此研究設計屬於觀察型(observational)、相關型(correlational)、實驗型中(experimental)的哪一類型？(5%)

(2-2). 請問若你在臨床遇到一位腦傷病人詢問他/她以後再開車的可能性有多高時，根據此研究結果，你會如何跟病人說明？(10%)

(2-3). 請問在 driver rehabilitation 中，職能治療可以扮演的角色為何？(10%)

3. 請閱讀下列研究摘要，並回答問題。

Pociask, F. D., DiZazzo-Miller, R., Goldberg, A., & Adamo, D. E. (2016). Contribution of head position, standing surface, and vision to postural control in community-dwelling older adults. *American journal of occupational therapy, 70*(1), 7001270010p1-7001270010p8.

#### **Abstract**

Postural control requires the integration of sensorimotor information to maintain balance and to properly position and orient the body in response to external stimuli. Age-related declines in peripheral and central sensory and motor function contribute to postural instability and falls. This study investigated the contribution of head position, standing surface, and vision on postural sway in 26 community-dwelling older adults. Participants were asked to maintain a stable posture under conditions that varied standing surface, head position, and the availability of visual information. Significant main and interaction effects were found for all three factors. Findings from this study suggest that postural sway responses require the integration of available sources of sensory information. These results have important implications for fall risks in older adults and suggest that when standing with the head extended and eyes closed, older adults may place themselves at risk for postural disequilibrium and loss of balance.

(3-1). 請說明何謂「姿勢控制」，及老化對「姿勢控制」的影響。(10%)

(3-2). 請說明本研究的自變項 (independent variable) 和依變項 (dependent variable) 分別為何。(10%)

(3-3). 請闡釋本研究的主要結果的臨床意涵。(5%)

4. 請閱讀下列研究摘要，並回答問題。

Radomski, M. V., Anheluk, M., Bartzen, M. P., & Zola, J. (2016). Effectiveness of interventions to address cognitive impairments and improve occupational performance after traumatic brain injury: A systematic review. *American Journal of Occupational Therapy, 70*(3),

7003180050p1-7003180050p9.

**Abstract**

**OBJECTIVE:**

To determine the effectiveness of interventions addressing cognitive impairments to improve occupational performance for people with traumatic brain injury.

**METHOD:**

A total of 37 studies met inclusion criteria: 9 Level I systematic reviews, 14 Level I studies, 5 Level II studies, and 9 Level III studies.

**RESULTS:**

Strong evidence supports use of direct attention training, dual-task training, and strategy training to optimize executive functioning, encoding, and use of memory compensations, including assistive technology. However, in most studies, occupational performance was a secondary outcome, if it was evaluated at all.

**CONCLUSION:**

Although evidence supports many intervention approaches used by occupational therapy practitioners to address cognitive impairments of adults with traumatic brain injury, more studies are needed in which occupational performance is the primary outcome of cognitive intervention.

(4-1). 請闡釋此研究結果所提供的臨床指引為何？ (5%)

(4-2). 請設計一研究以補足此摘要所認為研究證據不足之處，說明你所設計的研究目的、研究設計、目標族群、治療內容、評估項目。(30%)

(4-3). 請說明你所設計的研究將提供的證據層級為何？ (5%)