

1. 請寫出現代早期療育理論之『以家庭為中心』的五項原則，以及應用各項原則於臨床的實際做法 (35%)。
2. 請舉例一種具有實證基礎的兒童早期介入計畫，請說明此介入方法的理論，若要進行此介入計畫的療效研究，請說明研究設計和評估療效的方法(30%)。
3. 請回答下列問題：
 - (a) 請列出運用篩選評估工具時需注意之要點?並簡要說明各項要點(10%)。
 - (b) 請列出一項兒童發展評估工具，並簡要說明其施測項目，與施測方法(5%)。
 - (c) 請閱讀以下一篇有關於兒童發展的論文摘要，請以中文 500 字簡述本研究的概況(10%)，請提出此研究的評估工具為何 (10%)。

文章摘自

Choi JW, Han DH, Kang KD, Jung HY, Renshaw PF. Aerobic exercise and attention deficit hyperactivity disorder: brain research. *Med Sci Sports Exerc.* 2015 Jan;47(1):33-9

PURPOSE: As adjuvant therapy for enhancing the effects of stimulants and thereby minimizing medication doses, we hypothesized that aerobic exercise might be an effective adjunctive therapy for enhancing the effects of methylphenidate on the clinical symptoms, cognitive function, and brain activity of adolescents with attention deficit hyperactivity disorder (ADHD). **METHODS:** Thirty-five adolescents with ADHD were randomly assigned to one of two groups in a 1/1 ratio; methylphenidate treatment + 6-wk exercise (sports-ADHD) or methylphenidate treatment + 6-wk education (edu-ADHD). At baseline and after 6 wk of treatment, symptoms of ADHD, cognitive function, and brain activity were evaluated using the Dupaul attention deficit hyperactivity disorder rating scale--Korean version (K-ARS), the Wisconsin Card Sorting Test, and 3-T functional magnetic resonance imaging, respectively. **RESULTS:** The K-ARS total score and perseverative errors in the sports-ADHD group decreased compared with those in the edu-ADHD group. After the 6-wk treatment period, the mean β value of the right frontal lobe in the sports-ADHD group increased compared with that in the edu-ADHD group. The mean β value of the right temporal lobe in the sports-ADHD group decreased. However, the mean β value of the right temporal lobe in the edu-ADHD group did not change. The change in activity within the right prefrontal cortex in all adolescents with ADHD was negatively correlated with the change in K-ARS scores and perseverative errors.

CONCLUSIONS: The current results indicate that aerobic exercise increased the effectiveness of methylphenidate on clinical symptoms, perseverative errors, and brain activity within the right frontal and temporal cortices in response to the Wisconsin card sorting test stimulation.