Annals of General Hospital Psychiatry

Poster presentation

Open Access

Developemental risk: evidence from large non right-handed samples

F Vlachos*[1], F Gaillard[2], K Vaitsis[1] and A Karapetsas[1]

Address: [1]University of Thessaly, Greece and [2]Lausanne University, Switzerland
* Corresponding author

from International Society on Brain and Behaviour: 1st International Congress on Brain and Behaviour
Hyatt Regency Hotel, Thessaloniki, Greece, 20–23 November, 2003

Published: 23 December 2003 Received: 1 November 2003

Annals of General Hospital Psychiatry 2003, **2**(Suppl 1):S67

This article is available from: http://www.general-hospital-psychiatry.com/content/2/S1/S67

Background

The present study aimed to reveal developmental and sex related lateralization effects on a task of visual-spatial abilities, thanks to the collect of data from large non right-handed samples Non lateralized schoolchildren are not only backwards in maturation but also lack this advantage left- and righthanders have in their learning. This is why we can consider non lateralized schoolchildren as at risk of finding themselves in the "slow learners" if not in the "learning disabled" group, as far as visual-spatial abilities are concerned. In this sense, they are subjected to a true developmental risk.

Material and Method

A special recruitment procedure provided norms of the Rey Osterrieth Complex Figure' copy (ROCF) from large samples of lefthanded (n = 420) and ambidextrous (n = 72) compared to righthanded (n = 420) schoolchildren as well as to adults (n = 545). This graphic task was considered as reflecting the growth of visual-spatial intelligence and impairment at copying as the developmental risk. Subjects' hand preference was assessed by the Edinburgh Handedness Inventory.

Results

Analysis indicated that: (1) The trend towards consistent right-handedness is sex-related. Girls are clearly ahead of boys in this lateralization process and boys are over-represented in ambidextrous subjects. This greater prevalence of ambidextrous boys compared to girls decreases with age. (2) Performance on drawing the ROCF varies according to age and handedness groups. Ambidextrous subjects scored worse in all age groups.

Discussion

Non right-handedness should not be considered as a risk for cognitive development per se, but rarity of this condition makes it more likely to count in pathological cases.