

# Assessing the three attentional networks and vigilance in the adolescence stages

Giovannoli, J.  
Martella, D.  
Casagrande, M.

## Abstract

Attention involves three functionally and neuroanatomically distinct neural networks: alerting, orienting, and executive control. This study aimed to assess the attentional networks and vigilance in adolescents aged between 10 and 19 years using the attentional network test for interaction and vigilance (ANTI-V). One hundred and eighty-two adolescents divided into three groups (early adolescents, middle adolescents, late adolescents) participated in the study. The results indicate that after age 15, adolescents adopt a more conservative response strategy and increase the monitoring of self-errors. All the attentional networks seem to continue to develop during the age range considered in this study (10–19 y). Performance improved from early adolescence to middle adolescence and began to stabilize in late adolescence. Moreover, a low level of vigilance seems to harm alerting and orienting abilities.

## Author keywords

Adolescents  
Alerting  
ANTI-V  
Attention  
Executive control  
Orienting