

Working Memory as Endophenotypes in First-Degree Relatives of Children with Neurodevelopmental Disorders: An Indian Account

Kamlam Gopalkrishnan Iyer and S. Venkatesan

*¹Department of Studies (DOS), University of Mysore, Mysuru 570 006, Karnataka, India
E-mail: iyerkamlam@gmail.com*

*²Department of Clinical Psychology, All India Institute of Speech and Hearing,
Manasagangotri, Mysuru 570 006, Karnataka, India
E-mail: psyconindia@gmail.com*

KEYWORDS Cognitive. Executive Functions. Heritability. Parents. Probands. Tasks

ABSTRACT Few studies from India have undertaken research on neurocognitive endophenotypes in neurodevelopmental disorders (NDD). Hence, the researchers' objective was to assess one of the criterion of a neurocognitive endophenotype -- heritability. This study assesses an association between the children with neurodevelopmental disorders (NDD) and their first-degree relatives (FDR)--parents in working memory (WM) performance, using a framework of a unified definition of NDD. Additionally, differences in gender of parents in WM performance were assessed. A two-group cross-sectional design with 42 probands of NDD and their 54 parents (both mothers and fathers) were assessed on a similar WM battery of tests. Correlation between probands and parents and between mothers and fathers yielded no significant differences in their respective WM performance. The need for better statistical, methodological measures in the hands of an isolated researcher was highlighted along with the discussion in light of the concept of an endophenotype.