

The convergent validation and diagnostic performance of a new executive functioning behavior scale in identifying children with ADHD: a populational study.



Renato Arruda¹, Pedro Custódio D'Amico², Louise Marques³, Luis da Anunciação³
& Marco Antônio Arruda¹

¹GLIA Institute, Ribeirão Preto, SP, Brazil; ²UNIFEV School of Medicine, Votuporanga, SP, Brazil;
³Department of Psychology, Pontifical Catholic University of Rio de Janeiro, RJ, Brazil



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INTRO

- Attention Deficit/Hyperactivity Disorder (ADHD) symptoms are strongly correlated with and predictive of Executive Dysfunction. The Executive Function Inventory for Children and Adolescents (EFICA) is a functional scale recently validated¹ and being used for both clinically and in research for measuring executive functioning (EF) in children aged 5 to 18 years.
- Herein, we take advantage of a large populational sample of children to examine the convergent validation and diagnostic performance of this new instrument in identifying children with ADHD from typically developing children.

METHODS

- Consents and analyzable data were obtained from 3,205 children (93.9% of the target sample), 48% females, aged 5 to 12 years (M = 8, SD = 1.96).
- ADHD was ascertained according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM 5)² with validated questionnaires filled out by parents and teachers, including the parent's (EFICA-P) and teacher's (EFICA-T) versions of the EFICA, and the Strengths and Difficulties Questionnaire (SDQ)³ added by the impact supplement⁴.
- Difference between means and correlation analysis among EFICA and SDQ were conducted, as well as sensitivity (Se), specificity (Sp), and the receiver operating characteristic curve (ROC) were estimated.

RESULTS

- Compared to non-ADHD controls, children with ADHD exhibit higher EFICA scores indicating EF impairment.
- The correlation between the EFICA and SDQ was high ($r = 0.72$, $p < 0.001$). Significant mean differences were found between ADHD and non-ADHD children.
- The sensitivity, specificity, and the area under the ROC curve were, respectively, 0.9, 0.71, and 0.88 for EFICA-P, and 0.89, 0.81, and 0.88 for EFICA-T.

CONCLUSIONS

These findings demonstrate an appropriate convergent validity among parents' and teachers' versions of EFICA and SDQ in a large sample of Brazilian children. The EFICA also shows high levels of sensitivity and specificity in distinguishing children with ADHD and controls without ADHD.

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Figure 1. EFICA's distribution points.

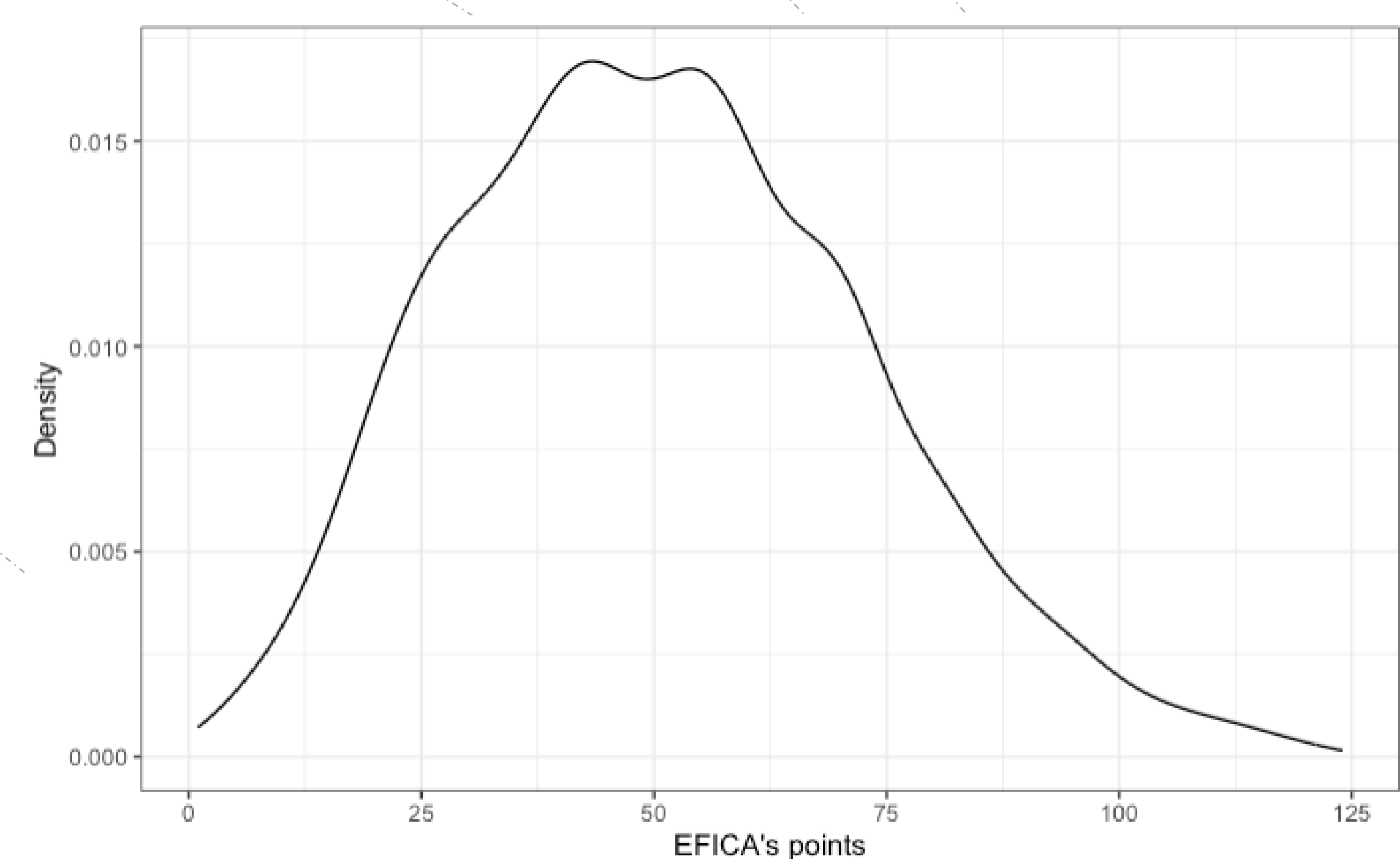


Figure 2. EFICA points contrasting children with ADHD and controls without ADHD.

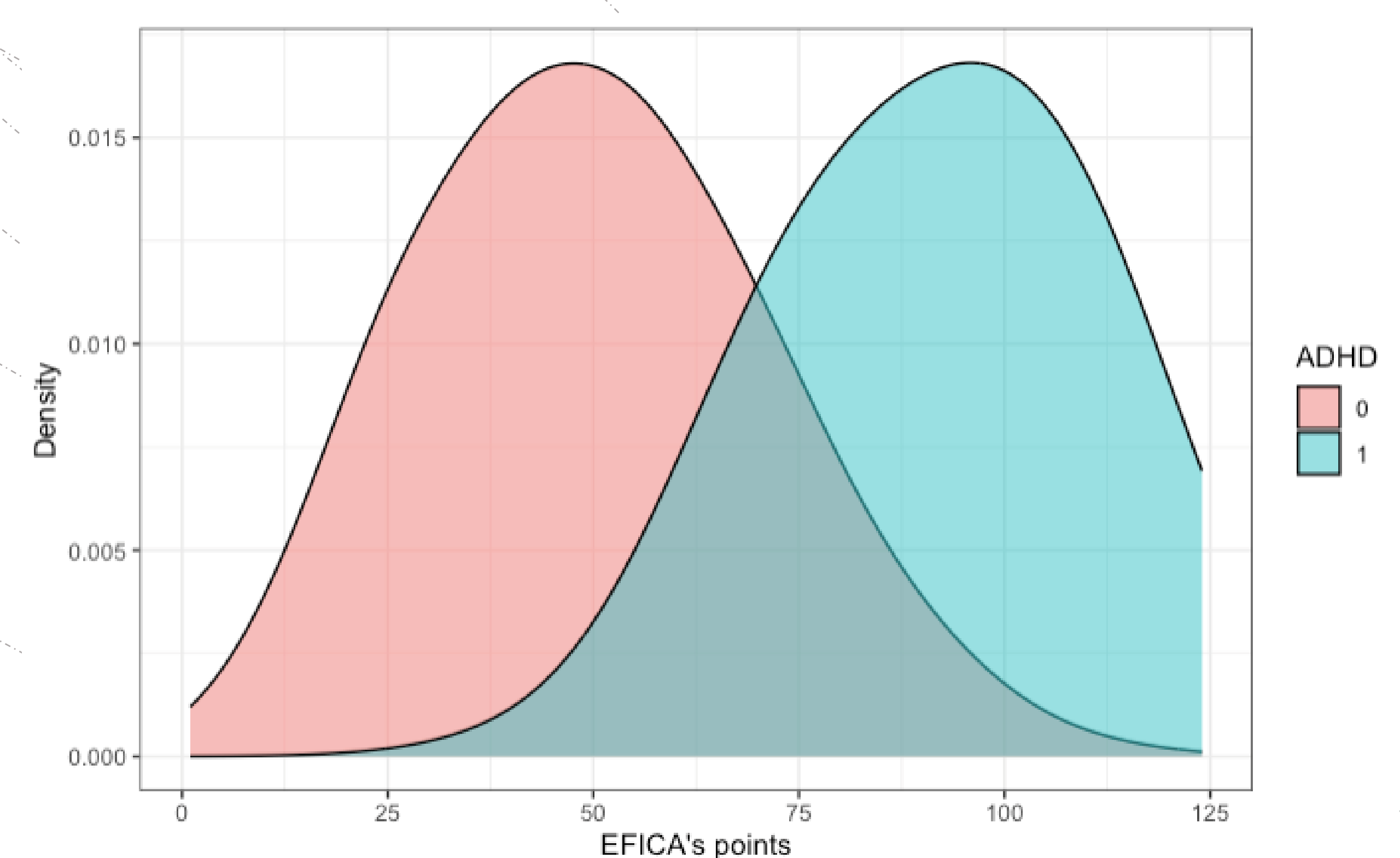
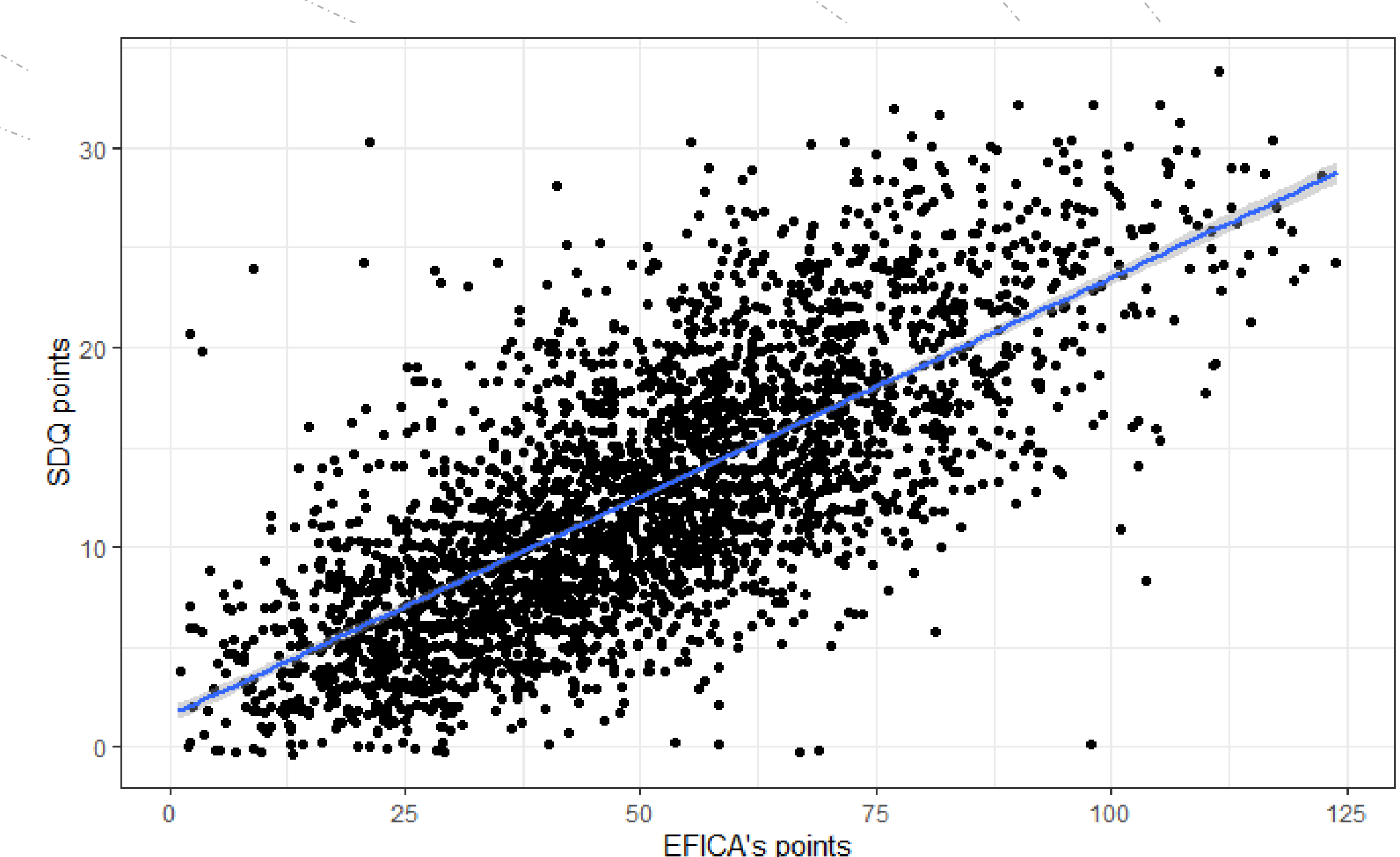


Figure 3. Strengths and Difficulties Questionnaire (SDQ) points as a function of EFICA's points.



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Disclosure of interest

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