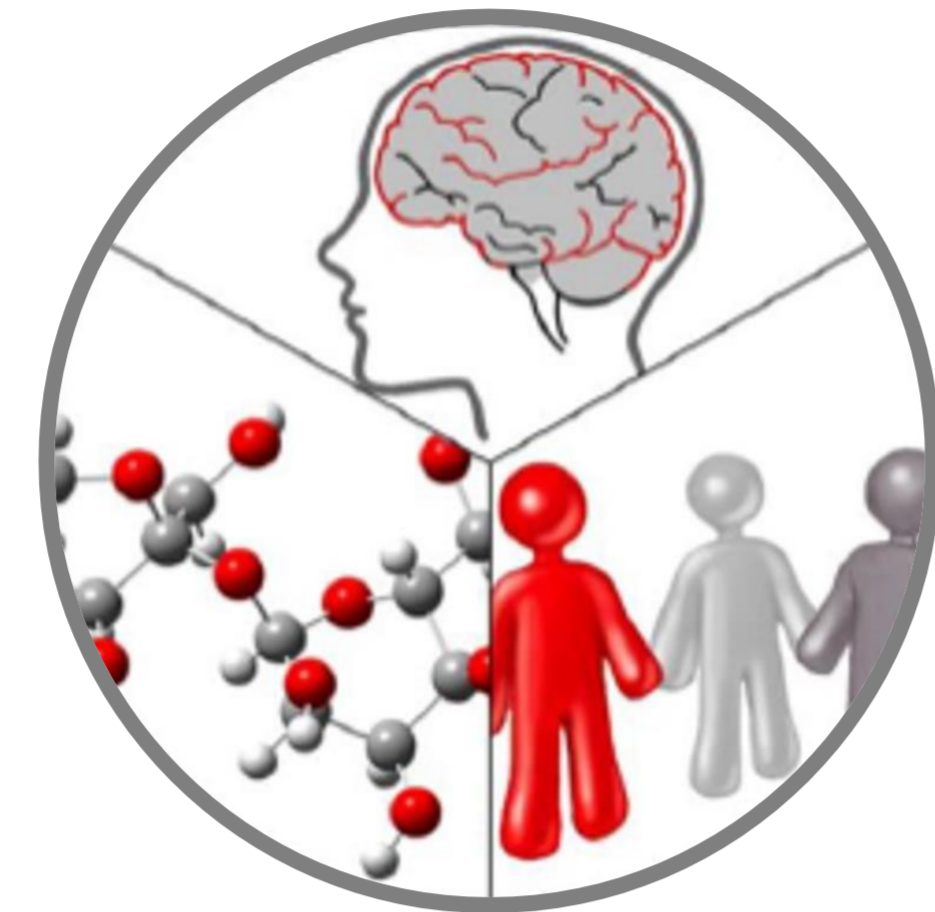


Lisa-Marie Rau ^{1,2}, Susanne Grothus ^{1,2}, Ariane Sommer ^{1,2}, Lorin Stahlschmidt ^{1,2}, Gerrit Hirschfeld ³, Lea Höfel ⁴, Roland Linder ⁵, Boris Zernikow ^{1,2,6}, Julia Wager ^{1,2,6}
¹ German Paediatric Pain Centre, Children's and Adolescents' Hospital Datteln, Germany; ² Department of Children's Pain Therapy and Paediatric Palliative Care, Faculty of Health, School of Medicine, Witten/Herdecke University, Germany; ³ Faculty of Business, CareTech OWL University of Applied Sciences Bielefeld, Bielefeld, Germany; ⁴ Center for Pain Therapy for Young People, Garmisch-Partenkirchen, Germany; ⁵ Techniker Krankenkasse, Hamburg, Germany; ⁶ PedScience Research Institute, Datteln, Germany

INTRODUCTION

Chronic pain is a biopsychosocial phenomenon [1]. Its comprehensive assessment and measurement of chronic pain treatment outcome should consider biological, psychological and social aspects.



AIM OF THE STUDY

To develop and validate a multidimensional outcome measure for pediatric chronic pain, the revised Pediatric Chronic Pain Grading (P-CPG), based on existing versions of the CPG for adults and adolescents [2,3]. Distribution properties of the revised P-CPG and its sensitivity to change were examined.

METHODS

Prospective longitudinal study with two measurement points (baseline (T1) & 3-month follow-up (T2))

Sample

- N = 1892 children and adolescents
- 3 subsamples (school, primary and tertiary care)
- 57.5% girls, age: M = 12.6, SD = 2.4, Range = 8 to 17 years

Measures

Standardized and internationally widely applied [4] questionnaires were used to assess

- Pain intensity (Numerical Rating Scale),
- Functional impairment (school days missed, FDI [5]) and
- Emotional impairment (RCADS [6])

Statistical Analyses

Mann-Whitney U tests, Wilcoxon tests

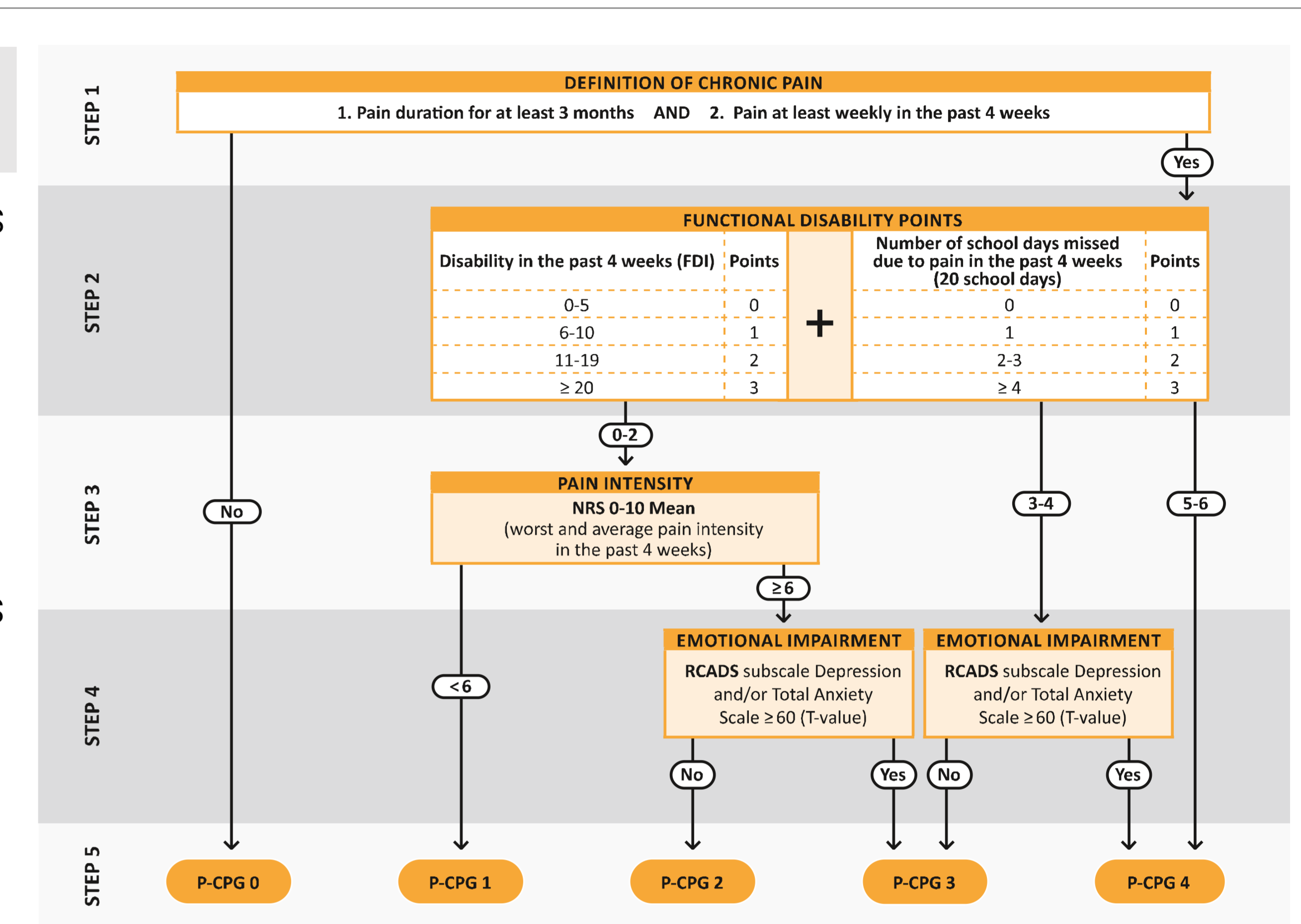


Figure 1. P-CPG Algorithm

RESULTS

- Children and adolescents in the school sample were most likely to have a P-CPG grade of 0 and were in significantly lower P-CPG grades than those in the other samples ($U = 16529.00$, $z = -6.86$ and $U = 95290.50$, $z = -22.21$, $p < .001$) (Fig. 2).
- Pediatric chronic pain patients in primary care had significantly lower pain severity grades than those in tertiary care ($U = 5883.00$, $z = -3.23$, $p < .001$) (Fig. 2).
- P-CPG grade was stable in the school sample and did not change significantly from T1 to T2, whereas in both patient samples, there was a significant decrease in P-CPG grades between the two measurement points (Fig. 3).

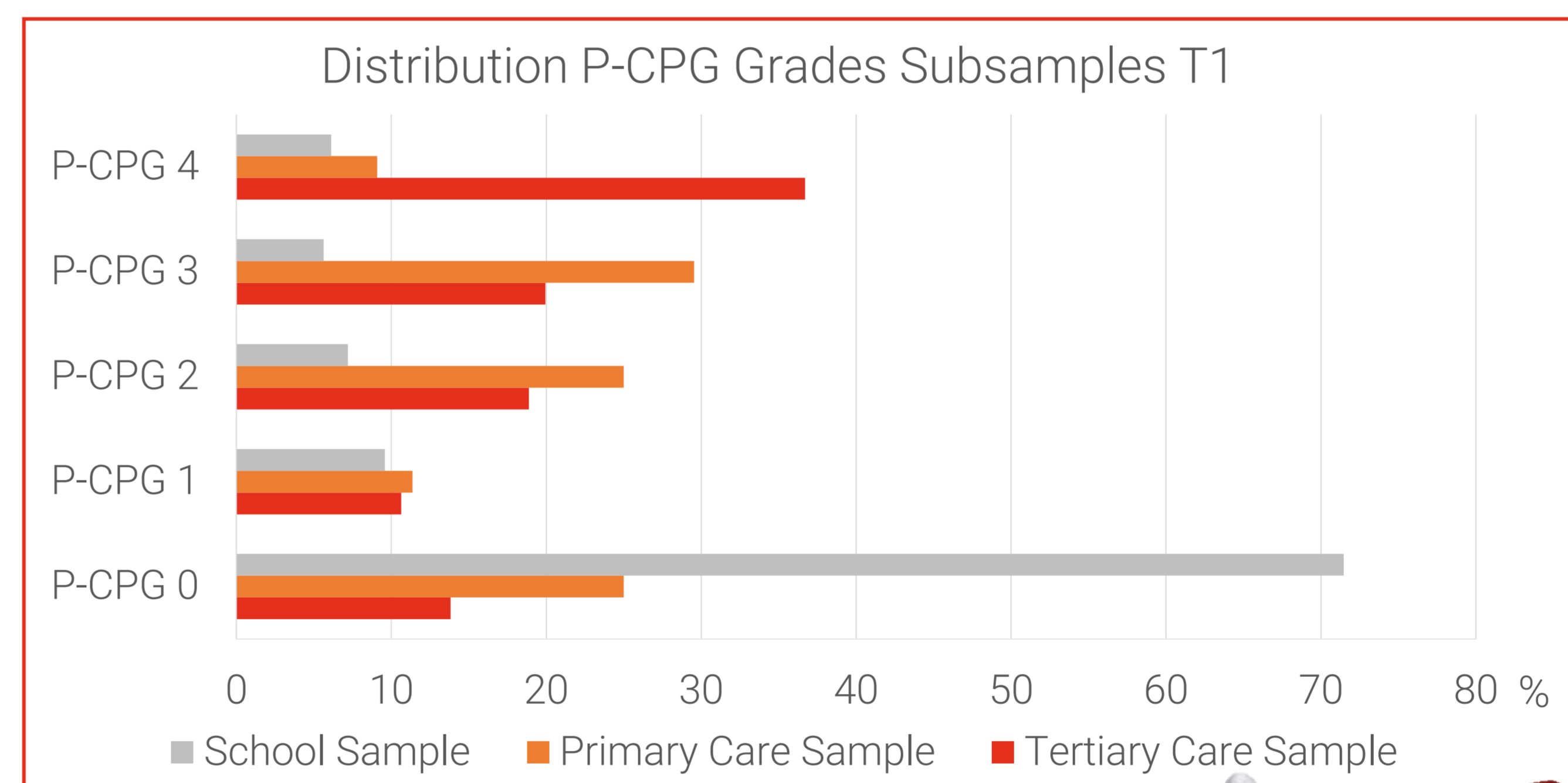


Figure 2. Distribution P-CPG Grades Subsamples T1

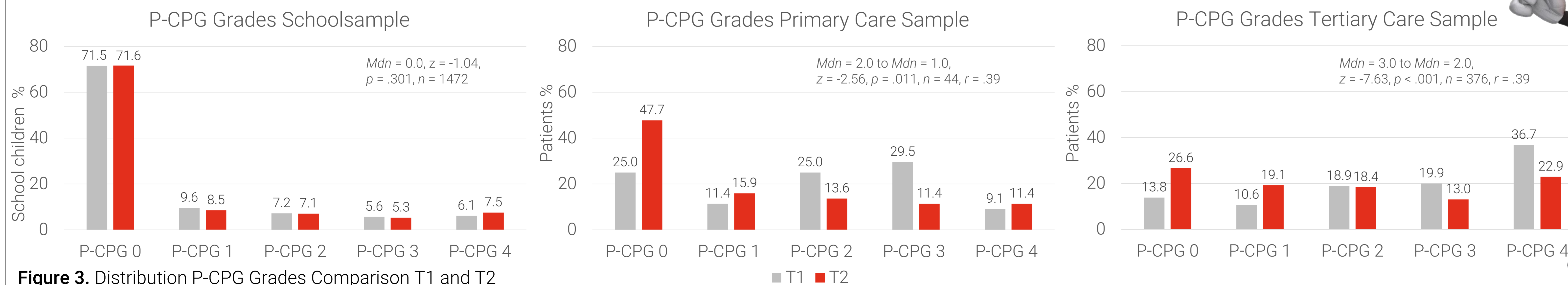


Figure 3. Distribution P-CPG Grades Comparison T1 and T2

CONCLUSIONS

01 The newly developed P-CPG integrates all biopsychosocial aspects of chronic pain.

The P-CPG seems to be a suitable measurement tool to discriminate chronic pain of varying severity in different epidemiological and clinical settings.

02

The new measure proved sensitive to changes after pediatric chronic pain treatment and thus is a useful tool for the assessment of treatment outcome.

03