

Correlation of Pediatric Headache-Related Functional Disability Inventory (FDI) and Prolonged School Absence

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BACKGROUND

- Headaches are the most common pain complaint in pediatric populations. Higher ratings of functional disability in children with headaches have been shown to predict longer emergency stays, increased medication use, and increased admission rates.
- The assessment and monitoring of functional disability associated with headache pain is critical to comprehensive care.

OBJECTIVES

- Determine relationship between parent-rated functional disability and school absence among youth with headaches treated in an interdisciplinary outpatient setting.
- Examine potential differences in the relationship between functional disability and school absences across age and gender.

METHODS

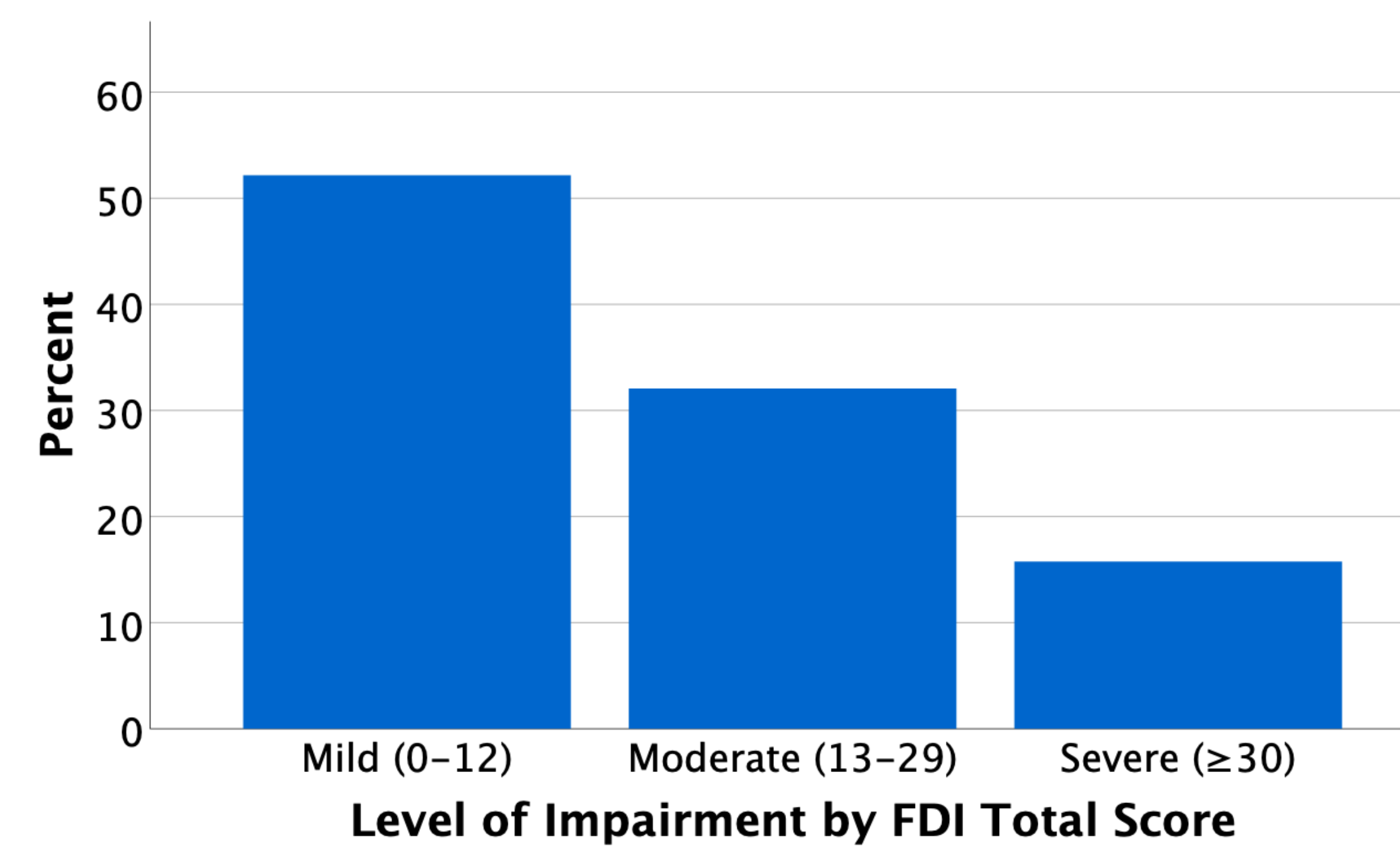
- Setting: University of Utah Comprehensive Pediatric Headache Clinic
- Procedures: Parents and patients completed questionnaire battery as part of intake process. Data analyzed in Stata via retrospective chart review.
- Participants: 184 headache clinic patients ages 5-18 and their parents seen between December 2017 to July 2018.
- Analyses: Relationships between functional disability and school days were investigated using bivariate correlations. Multiple linear regressions were conducted to examine the influence of age and gender on the relationship between functional disability and missed school.

	Frequency (n = 184)	Percent
Gender		
Male	83	45.1%
Female	101	54.9%
Age		
0-5	2	1.1%
6-10	23	12.5%
11-15	66	35.9%
16+	93	50.5%

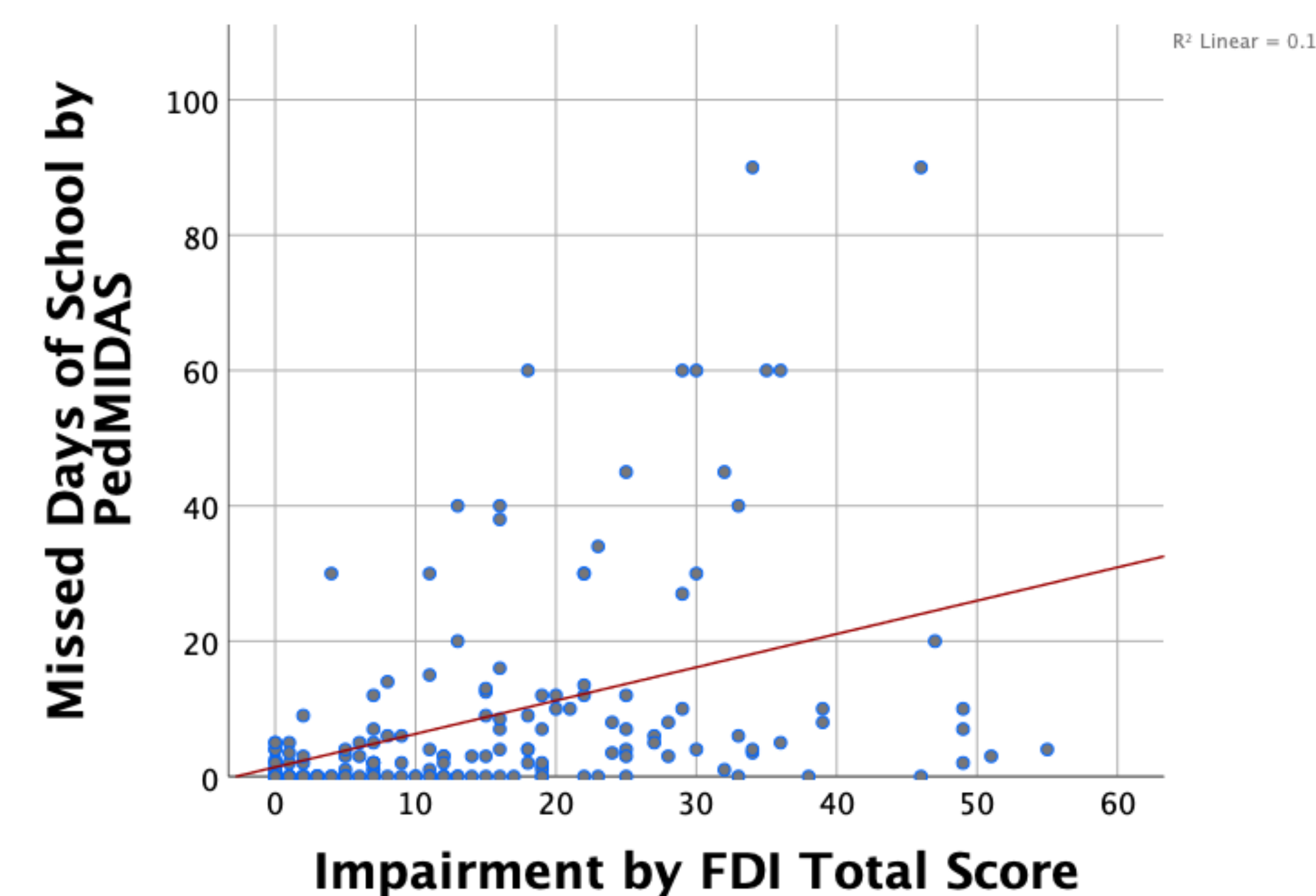
MEASURES

- Functional Disability Inventory, Parent Version (FDI; Walker & Greene, 1991):** 15-item parent-report measure assessing pain-associated disability across a variety of school, home, recreational, and social activities over the past three months; max score = 60 with higher scores indicating more disability.
- Pediatric Migraine Disability Assessment (PedMIDAS; Hershey et al., 2001):** assessment of disability associated with headache, within three month period; respondents indicate number of days with headache episodes, missed full and partial days of school, missed activities, and days with reduced functioning at school, home, and activities; utilized data from question 1 on missed full days of school.

Severity of Parent-Rated Impairment



Correlation of Impairment with Missed Days of School



RESULTS

- Higher total parent-rated FDI scores showed moderate correlation with increased missed days of school ($r = .4, p < .05$).
- Multiple linear regressions were computed for missed days of school predicted by Age, Gender, and parent-rated FDI score. FDI score significantly predicted missed days of school ($\beta = .49, p < .05$). There was a significant interaction effect for both Age ($\beta = .77, p < .05$) and Gender ($\beta = .32, p < .05$) in that FDI scores were a stronger predictor of missed days of school for female and for older children.

Regression of FDI Scores on Missed Days of School by Age and Gender

	B	SE B	β	p
FDI	-.61	.37	-.49	.10
Age	-.41	.46	-.09	.37
Age x FDI	.06	.03	.77	.02*
Gender	-3.71	3.39	-.11	.28
Gender x FDI	.43	.18	.32	.02*

Note: * = $p < .05$

CONCLUSIONS

- Parent-reported functional disability scores on the FDI significantly predicted parent-reported total missed days of school due to headache.
 - This relationship was moderated by Age and Gender in that this relationship was stronger for female and older children.
- Parent-reported functional disability in children with headaches is an important component of multidisciplinary evaluation. Further exploration of the risk of functional disability for female adolescents is important.
- It is essential to assess and consider the role of functional disability in perpetuating problematic outcomes for children with headaches.