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Mobile Application for Diagnosis and Treatment of Childhood Headache

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Objective

To develop and validate a mobile headache diary application for children to assist physicians in the diagnosis and treatment monitoring of primary headaches in pediatric patients.

Methods

The development of the application was based on a literature review in PubMed, ScienceDirect and LILACS. The application was validated by 20 neurologists/pediatric and neurologists, using an electronic questionnaire. Data were analyzed with a significance level of 5% ($p < 0.05$). Cronbach's Alpha was used to assess the reliability of the questionnaire, and the Content Validity Index (CVI) was used to validate the application's content.

Results

For the development of the application, 36 articles were selected addressing diagnosis, treatment, prevalence, associated factors, and assessment tools related to primary headaches.

The final product contains 51 screens in light mode and 40 in dark mode, totaling 91 screens, as well as 35 original illustrations (Figure 1). Among the 20 expert judges, the time since graduation and experience in the field of neurology ranged from five years (55%) to over 20 years (30%). Cronbach's alpha was 92.55%, demonstrating excellent internal consistency of the instrument, while the CVI was 91.07%, indicating high-quality content.

Figure 1 – Application *Enxaque o quê?*

Conclusion

The application "*Enxaque o quê*?" proved to be a valid tool to support the management of childhood headaches, with potential to optimize clinical practice in pediatric neurology.