Patient and Provider Acceptance of a mHealth Application following Dental Procedures: Interim Usability Survey Results

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Objectives: This research is part of an ongoing study aimed at assessing patient pain experiences resulting from dental procedures. The study enrolled 150 NDPBRN practitioners across six geographic regions, who are actively enrolling patients with the targeted goal of 3147. These patients received surveys through a mHealth platform at specified intervals following their procedure, culminating in a System Usability Scale (SUS) Survey consisting of a 10-item questionnaire to gauge their mHealth system experience. On the other hand, providers enrolled a maximum of 30 patients and concluded their participation by completing a Unified Theory of Acceptance and Use of Technology (UTAUT) Survey consisting of 31 tailored questions. Although Usability Surveys employ distinct questions, calculation methods, and interpretations, the overarching objective is to gain insights into the technology's acceptance.

Methods: The SUS survey data underwent cleaning and organization into tabular format, standard formulas were applied to compute a final score ranging from 0-100. The UTAUT survey comprised of tailored questions, necessitating a customized approach for data handling. The questions were categorized into 5 categories and while a comprehensive statistical analysis will be conducted on the final dataset, interim data analysis was done by creating a heatmap to recognize the broader response pattern.

Results: The data yielded a final SUS score of 90, which corresponds to an 'A' grade based on the reference table. While the interpretation of SUS scores can vary, these interim results consistently indicate a high level of acceptability. In contrast, the UTAUT heatmap displays mostly acceptable results across all five categories, although with varying degrees of predominance.

Conclusion: Interim analysis reveals a significant level of acceptance and satisfaction with usability from the patient's perspective and providers appear to approach mHealth with cautious optimism. Notably, both survey response rates and willingness to participate underscore a welcoming response toward mHealth adoption.