Usability, Acceptability, and Impact of a Pediatric Teledermatology Mobile Health Application

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OBJECTIVE: Pediatric dermatology appointment wait times often exceed several months. We evaluated the usability, acceptability, and clinical impact of a store-and-forward teledermatology mobile application (app) linking families with pediatric dermatologists.

METHODS: Parents of children age 6 weeks to 17 years or individuals 18–21 years old were invited (by e-mail or referral) to participate in this single group, prospective study. Within the app, users photographed the skin condition, answered questions, and submitted their case for review. One pediatric dermatologist viewed cases, diagnosed conditions, and provided instructions and prescriptions. User surveys immediately following app use and 1 week later, supplemented by electronic logs, assessed usability, acceptability, and impact.

RESULTS: One hundred ninety-seven parents and one adolescent submitted cases within 39 days of invitation. App users were more likely to be white than those in the population invited (67% vs. 34%, $p < 0.001$) and their children were slightly younger (mean 7.3 vs. 9.0 years, $p < 0.001$). A majority, 83% found the app easy to use, 97% felt that submitting a case took “the right amount of time,” 87% were satisfied, and 93% would use the app again. Prescription receipt was associated with increased app satisfaction ($p = 0.008$). The median user received a response in 2.8 h (interquartile range 1.1–6.4). Had the app been unavailable, 44% reported that they would have waited for primary care, 32% for a dermatology appointment, and 7% would have gone to an urgent care clinic.

CONCLUSIONS: A mobile health app allowing families to directly consult a pediatric dermatologist was usable, acceptable, and expedited care.

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