A-TACT App: Alzheimer's Tracking, Assistance, Communication, and Technology Support for Caregivers

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Alzheimer's disease presents a real challenge for caregivers, often leading to high stress and mental strain, as shown by Kim et al., 2021, Vu et al., 2022, and Hosseini, 2022. Informal caregivers are at risk of suffering from emotional and physical burdens since many lack access to immediate professional support or specialized resources. The researchers, having experienced firsthand the struggles of caregiving and the loss of a loved one due to Alzheimer’s, recognize the need for an all-in-one support system. Because of this, the researchers developed a mobile application that they named A-TACT, an app to track, assist, provide communication and technology support to Alzheimer's patients caregivers. Prior to building it, an original questionnaire was created and validated as the instrument for a market survey to meet caregivers’ needs. The survey provided insights into the needs of caregivers, with 90% having never used a caregiving app and 96% agreeing on its potential benefits. The biggest challenge reported was managing behavioral changes (49%), followed by coordinating medical appointments (26%). The most requested features included medication reminders (32%), symptom tracking (27%), and educational resources (23%). After building the A-TACT App, the researchers performed screens functionality testing, which confirmed a successful integration of essential features such as a scheduling calendar, cognitive games, live chat, and GPS tracking with a fluid and responsive navigation interface. These results validated the app's effectiveness, thus confirming that the app meets the key needs of caregivers identified in the survey. Future testing with real users will help refine the app, as well as adding features like patient tracking and an AI-powered therapy chatbot.

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