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DEVELOPMENT OF A MOBILE APPLICATION FOR POST-CARE MANAGEMENT OF PATIENTS WITH DIABETIC FOOT

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Background: Diabetes mellitus is a clinical syndrome which is characterized by the presence of hyperglycemia. Long-term hyperglycemia is responsible for diabetes-specific 'microvascular' and 'macrovascular' complications. The feet are especially vulnerable to diabetes as there may be a loss of protective sensation, inadequate blood supply, or both which lead to ulceration. This is the most common cause for recurrent hospital admission for patients with diabetes which carries a heavy burden for the healthcare system. To prevent this, proper post-care management is needed for diabetic foot and glycemic control by providing proper communication between patients and healthcare professionals through a mobile application.

Methodology: The research was carried out to identify the limitations related to diabetic foot regarding the mobile application through a literature review, to recognize required measurements, inputs, and instructions that should be included in the application through interviews and surveys, and to design user interfaces with access to both the patients and doctors and develop the mobile application. Stakeholder interviews were done with the medical professionals to gather input for the application. Requirement analysis was carried out with the aim of finding functional and non-functional requirements of the application. User interface sketches were drawn, and they were designed using Figma afterward.

Deliverables: A mobile application was developed with a focus on reducing the burden of PIH complications. User interfaces were designed, incorporating feedback from healthcare providers to enhance maternal health outcomes.

Conclusion: By developing a mobile application, we can enhance the post-care management of diabetic foot because it adheres the patient to treatment protocols and proper communication with healthcare professionals.

Keywords: Diabetes mellitus, Microvascular and macrovascular complications, Diabetic foot, proper post-care management, glycemic control.