EFFECTIVE MONITORING SYSTEM FOR DIABETES MELLITUS SELF-CARE ROUTINE

Panchali Denipitiya

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> Department of Computing Informatics Institute of Technology, Sri Lanka in collaboration with

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Abstract

Health is important for every living being. Even though humankind has come a long from their pre-historic ancestors and has manged to increase the quality of life with the help of modern medicine, serious health issues have emerged that not even modern medicine could give a complete cure. Such menacing health issue is Diabetes Mellitus for which a permanent cure has still evaded the modern mankind's thinking prowess. In low- and medium-income countries, Diabetes and its complications affect the economically productive age range that has subdued the economic development dire needed. For highincome countries, direct health costs continues to rise.

Even though it cannot be cured, Diabetes could be successfully managed with an effective self-care routine and avoided through being informed. Despite the fact that Diabetes self-care is one of the most important aspects for a Diabetes patient, it was found that most Sri Lankan Diabetes patients are unable to effectively manage it.

This project thus aims to analyze the reasons that has led to Sri Lankan Diabetes patients' inability to effectively manage their self-care routine at home and also to analyze the unavailability of a tool that predicts pre-Diabetes susceptibility. After analysis it will build a conceptual framework which could be incorporated into the Diabetes self-care management in Sri Lanka and to allow an individual to get an average understanding if his/her susceptibility to Diabetes depending on few major criteria.

In delivering an effective IT solution for the Diabetes self-care management attitudinal, socio-economic, and technological factors were evaluated with the aid of literature. These facts were further validated through interviews, and questionnaires conducted with consultant doctors, Diabetes patients, their family members and care takers. Almost all the findings were par with the identified factors in Sri Lanka. Based on this, the IT solution 'GlucoKare' was developed as a tool that helps Diabetes patients to effectively monitor self-care routine and also as a tool to predict pre-Diabetes. And the implemented version was evaluated by experts. It highly rated by end users for streamlining Diabetes self-care in Sri Lanka by addressing identified stress fa ctors.