6COSC023W – Final Project Report

A Mobile Application for Self-assessment and Management of Perinatal Depression

Student: Lakna Perera (20191137)

Supervisor: Namal Malalasena

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Abstract

In the context of public health, Perinatal Depression represents an aspect of significant importance which potentially could be considered detrimental in the absence of timely and appropriate interventions.

Empirical research has consistently presented evidence to support the assertion that developing countries exhibit much higher prevalence rates of perinatal depression in comparison to developed countries. Proving the aforementioned fact, 10% of Sri Lankan females exhibit perinatal depressive symptomatology as a result of some significant bottlenecks that hinder the advancement of the Sri Lankan maternal mental wellness sector. This study aims to identify the pressing concerns that contribute for the prevalence of perinatal depression in Sri Lanka and design, develop, test and evaluate a mobile healthcare solution that demonstrates the ability to address the identified bottlenecks.

This research adheres to a methodology where the general opinions, experiences and preferences of mothers going through antepartum and postpartum phases of maternity are gathered and analysed with the purpose of identifying the most feasible and convenient solution to address the requirements. A questionnaire was shared among a random sample of 13 females for the requirements elicitation. In parallel interviews were conducted with numerous domain experts which became extremely instrumental in gaining insight into the existing system of identification of the vulnerability for perinatal depression, available treatment options and the areas which need solutions from a professional perspective. In parallel, a literature review was conducted to gain insight on the existing research, projects and mobile solutions, identify their limitations and investigate their degree of compatibility to the local target community.

As a result of the efficaciously completed research, a mobile healthcare solution facilitating the self-assessment and management of perinatal depression has been devised targeting the wellbeing of the Sri Lankan females at the risk of perinatal depressive symptomatology thereby, contributing to the overall development of the maternal mental healthcare sector. As the name implies, "Tranquil" has been designed to uplift the spiritual aspect of mothers by assisting them to self-evaluate any vulnerability for perinatal depression at the earliest possible, thereby mitigating any chronic consequences that could potentially affect not just the mother but also the infant and the family as a unit.