6COSC023W – Draft Final Project Report

Fertility Tracking Mobile Application

Student: A.L.Himasha Perera (2017316)

Supervisor: MS. Kalpana Weerasinghe

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Abstract

One of life's most stressful experiences is trying to conceive naturally. Studies have stated that infertility affects millions of people worldwide are suffering from infertility. According to recent evidence, people of reproductive age have insufficient fertility awareness about fertility and infertility risk factors. Even in women with fairly regular cycles, the interval of peak fertility during the menstrual cycle is limited in duration, and the day of ovulation varies. As a result, determining the "fertile window" for women trying to conceive must be extremely precise. Smartphones are becoming increasingly entwined with the most intimate aspects of daily life, opening up opportunities for the continued expansion of digital self-tracking technologies. In particular, the primary aim of this study was to examine the factors that contribute to a couple's inability to conceive naturally and design and develop, an e-health mobile application to help women improve their chances of naturally conceiving as well as to aid in determining whether a couple is infertile. This project also aims to assist the Sri Lankan government in improving the website of the Family Health Bureau. To collect, analyse, and synthesize data, a survey was conducted using a mixed method with quantitative and qualitative questions from women who visited fertility clinics following convenience sampling method and interviews with industry experts such as gynecologists and obstetricians. The fertility tracking mobile application was developed over the course of two semesters. The rapid application development methodology aided in the early implementation goal. Finally, the application was tested using Blackbox and Whitebox testing, as well as a qualitative approach for user testing.