CHILDPATH: DIAGNOSE DEPRESSION IN PRE-SCHOOLERS BASED ON DAILY ACTIVITIES

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A dissertation submitted in partial fulfilment of the requirements for Bachelor of Science (Honours) degree in Business Information Systems

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Informatics Institute of Technology, Sri Lanka
in collaboration with
University of Westminster, UK

2020

Abstract

Feeling low occasionally is a normal part of life. However, when emotions such as hopelessness and despair are persistent, it may be due to a mental health disorder. The most common mental health disorder worldwide stands to be depression affecting adults, adolescents and children as young as pre-schoolers. One of the key defenses against depression is early detection based on symptoms. With the availability of diagnosis tools, depression in adults and adolescents can be easily recognized. However, there is a gap around diagnosis in pre-schoolers. Identifying depression in pre-schoolers is more challenging due to several reasons including lack of awareness, long term identification processes, feelings indirectly expressed and unnoticed by parents.

Based on the background, this project aims to analyse and identify depression symptoms in pre-schoolers and to design, develop and evaluate an IT solution to detect potential psychological distress in pre-schoolers and to seek for professional support. To validate the background, aspects such as causes, symptoms, treatment plans, depression statuses and existing diagnosis theories were investigated using reviews of literature. To propose an effective solution, the findings were further evaluated via interviews with medical experts and questionnaires circulated among parents of pre-schoolers.

The results of the evaluation suggested a need for a depression status calculation mechanism in pre-schoolers. It was identified that two key consultation techniques can be utilized based on the identified depression status i.e. video consultation and personalized treatment plans catering to the pre-schoolers needs. Hence, the **ChildPath** mobile application was formulated on the findings to diagnose depression status in pre-schoolers. It is based on recording daily activities for a period of 30-days and connects users with professional practitioners in the field. This solution offers services including tracking the progress of the pre-schooler and connecting parents with support help groups to create awareness and overcome social comparison. Experts and non-experts