

Development and Evaluation of Mini Call Center Supported by Mobile Application for Malaysian Smokers: A Validation of Self-Assessment Tool Named “Reason for Smoking Scale” in Bahasa Malaysia Version

Abstract

Since Kempen Tak Nak was launched on 2009, numerous activities to create awareness and promote quit smoking have been introduced and implemented. Abundant of useful information for quit smoking program is available online to support such activities. However, most of the content is not localized and tailored to Malaysian smokers. The latest report from Global Adult Tobacco Survey (GATS) in year 2011 showed that 46% had tried to quit smoking. For that reason, there is an urgency to develop a Smoking Cessation Program personalized to Malaysian smokers. Furthermore, in September 2011, the world leaders in the United Nations High-Level Meeting on non-communicable disease (NCDs) unanimously approved an action plan for fighting NCDs that including smoking cessation program. There are several tools used by practitioners in helping smokers to quit such as 5As brief intervention (Ask, Assess, Advise, Assist, Ask again), Fagerström Test Nicotine Dependence and others. In this project, we plan to validate a self-assessment tool named Reason for Smoking Scale (RSS) in Bahasa Malaysia version. Although RSS has been developed and validated worldwide, it has still not been culturally and linguistically adapted for used in Malaysia. The scale was created in order to standardize and measure the motives behind smoking. There are 9 motives in RSS that motivate smokers to continue smoking: addiction, pleasure from smoking, tension reduction, stimulation, automatism, handling, social smoking, weight control and affiliate attachment. It is recommended to use RSS to properly diagnose the motives of smoking before specification decision of the treatment made for the smokers to quit smoking. There will be three main stages in this project.

- 1) Development of content: Validation of Reason for Smoking Scale (RSS)
- 2) Development of mini call center supported by mobile application (Mini Call-Mobile App)
- 3) Evaluation of Mini Call-Mobile App

Stage 1: Validation of RSS

Questionnaire validation methodology will be applied in developing RSS localized to the Malaysian smokers. The target group will be adult smokers (age 18 years old and above), male and Malaysian. In this phase, there will be three phases: content validity, face validity and test-retest of the RSS. Content validity will be conducted with 6 experts in Smoking Cessation Program to look through and analyse the Bahasa Malaysia translated version of the items. The item-content validity index (I-CVI) will be utilized where a majority of agreement from the experts, ranging from 5 out of 6 agreed ($I-CVI > 0.83$) with the questionnaire will ensure the proceeding of the research into the next phase. Face validation is to clarify of the questionnaire's language and the time taken to complete the questionnaire. The test-retest phase will be conducted with 40 participants. Reliability testing will be done to test the internal consistency of the questionnaires indicated using the Exploratory Factor Analysis,

and Cronbach's Alpha. If no changes need to be made with the questionnaires after the test, a retest of the questionnaires will be conducted with the same group of 40 participants again two weeks after the previous questionnaire data collection was made. The final analysis of the data from all of the testing will be evaluated through Confirmatory Factor Analysis.

Stage 2: Development of Mini Call-Mobile App

A mini call center supported by mobile application will be developed. Data from RSS will be collected either through phone call or Mobile App. The information will then be stored in Internal Database Server. The system shall utilize the Google Server to disseminate information or feedback to the users using bulk messaging system via cloud. Operators of the Call Centre and users of the app may provide information into the database server as well as retrieving data from it.

Stage 3: Evaluation of Mini Call-Mobile App

Data will be retrieved and analyse to extract the following information: the prevalence, demographics, pattern of smoking motives of Malaysian smokers and the usability of the online RSS.

Ultimately, we hope that this RSS tool accessible for smokers and practitioners. We will alpha test the mini call centre before proceed with beta testing throughout Malaysian smokers nationwide. All data will be collected and store in an internal database server. Hence, this will enable us to analyse data and explore the trend of Malaysian smoker according to the RSS. This will result towards individualized approach conferring to the dominant scales possessed by the smokers after completing the questionnaire for RSS. We hope this project of mini call centre supported by mobile application to deliver RSS will create a platform for better understanding of Malaysia smokers. Furthermore, the Bahasa Malaysia version of RSS will enable the smokers to explore about themselves and enhanced awareness towards better healthy life.

Project team: Dr Faizah Safina binti Bakrin, Mohamad Adam Bin Mohamad Saladri , Nur Ira Izzati binti Abdul, Wan Nur Fasahah Binti W Musa, Qaedi Zulqisti Bin Borhanuddin