Application of WHO's Guideline to Evaluating Apps for Smoking Cessation

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Abstract : Background: The use of mobile apps for smoking cessation has grown exponentially in recent years. Yet, there were limited researches which evaluated the quality of smoking cessation apps to our knowledge. In most cases, a clinical practice guideline which is focused on clinical physician was used as an evaluation tool. Objective: The objective of this study was to develop a user-centered measure for quality of mobile smoking cessation apps. Methods: A literature search was conducted to identify articles containing explicit smoking cessation guideline for smoker published until January 2018. WHO's guide for tobacco users to quit was adopted for evaluation tool which assesses smoker-oriented contents of smoking cessation apps. Compared to the clinical practice guideline, WHO guideline was designed for smokers (non-specialist). On the basis of existing criteria which was developed based on 2008 clinical practice guideline for Treating Tobacco Use and Dependence, evaluation tool was modified and developed by an expert panel. Results: There were five broad categories of criteria that were identified including five objective quality scales: enhancing motivation, assistance with a planning and making quit attempts, preparation for relapse, self-efficacy, connection to smoking. Enhancing motivation and assistance with planning and making quit attempts were similar to contents of clinical practice guideline, but preparation for relapse, self-efficacy and connection to smoking (environment or habit which reminds of smoking) only existed on WHO guideline. WHO guideline had more user-centered elements than clinical guideline. Especially, self-efficacy is the most important determinant of behavior change in accordance with many health behavior change models. With the WHO guideline, it is now possible to analyze the content of the app in the light of a health participant, not a provider. Conclusion: The WHO guideline evaluation tool is a simple, reliable and smoker-centered tool for assessing the quality of mobile smoking cessation apps. It can also be used to provide a checklist for the development of new high-quality smoking cessation apps.

Keywords : smoking cessation, evaluation, mobile application, WHO, guideline
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