Parent Support to Prevent Children Unintentional Home Injuries using KIDDOPPS: An Experiment of Mobile Apps Development and Evaluation

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Background: In Iran, the mortality of unintentional injuries for a child under five years is higher than global average. As the most of these injuries occur at home and around, parent play important role in reducing such injuries. As yet, in Iran, there isn’t any electronic intervention to support parent to prevent child injuries. This study aims to develop and evaluate KIDDOPPS which is a mobile app to support parents preventing and caring about unintentional child injuries.

Method: This is a development and practical research. In first, a literature review was conducted and the requirements features for apps design extracted. Then a number of physicians were surveyed to determine the most important elements through a questionnaire. The results of questionnaires were analyzed and final elements determined. Considering all essentially required features, the apps was designed and then created in Android Studio tool with Java programming language. We named the apps KIDDOPPS inspired from kiddo (meaning child) and the word apps. Next, usability of KIDDOPPS was measured by using Chin questionnaire. Participants were 20 parents of children under 5 years of age living in Kerman in November 2017.

Result: The findings of the research in the first stage were demographic information, clinical informational, educational feature requirement for the apps. Twelve experts in the field of emergency and pediatric participated in the survey. App features included child emergency PHR, safe home test game and alert, smart injury assessment and treatment proposal, textual training safety behaviors, CPR training, drug and care

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reminder, finding user location, finding healthcare center, and first aid kit. The app's satisfaction and usability test mean score were obtained 7/42 (out of 9). These results indicate that the level of satisfaction of users from the app is at a good level.

**Conclusion:** It is expected that KIDDOPPS provides a new and exciting way to support parents in order to prevent and care unintentional child injuries, which can be used as a supplemental actions to empower parents fulfilling injuries prevention goals by families at their homes besides other interventions.

**Keywords:** mHealth, Mobile Application, Unintentional Injuries, Parent, Prevent, Child