



ABSTRACT BOOK

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Oral Presentations – E-learning

Mobile Apps and Health Promotion: What is the Evidence?

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Background:

The widespread use of mobile communication technology offers huge opportunities in the field of health, both in clinical and in prevention with considerable interest also from a commercial point of view. The aim of the study was to perform a systematic review in order to find a scientific evidence about the efficacy of apps in health promotion.

Methods:

Pubmed, Embase and Google Scholar searches were carried out up to December 2015 using different keyword combinations: "applications", "app", "mhealth", "mobile phone", "smartphone", "prevention" and "health promotion". We selected only randomized control trials (RCTs). The research was carried out according to Prisma Statement.

Findings:

We retrieved a total of 589 eligible articles of which 33 RCTs were selected. The articles considered apps on weight management (N=10), physical activity (N=7) and healthy behaviors including diet and physical activity together (N=10). The other papers focused on apps designed to sun protection, smoking cessation, alcohol consumption and stress reduction. Only 16 studies (48%) evaluated the efficacy of mobile app only. In the other studies the app was linked to other web tools and supports.

Forty-five percent of the studies found evidence of efficacy of apps particularly in the case of apps designed to modify lifestyles (7 papers out of 10) and increase physical activity (4 papers out of 7). Of these, the efficacy of apps alone was found only in 5 papers (30%).

Most of the studies selected had a follow-up short (94% less than 12 months) and a sample size very small (52% less than 100 subjects). These aspects don't allow to show the actual efficacy of apps in health promotion considering that the evaluation of stable lifestyle changes undoubtedly take a long time.

Discussion:

Overall the evidence so far about efficacy of apps in health promotion is still poor.

Nevertheless, the mobile apps could be effective if integrated within structured programs of health communication that means that they could become a valuable tool in support of the health professional in its efforts to promote education and health. However it is necessary to understand how to implement these technologies in public health perspective.

Development and Test of a Mobile Application Supporting Diabetes Self-management in Newly-diagnosed

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Background:

Numerous mobile applications (apps) have been developed to support diabetes self-management. However, the majority of these apps are not theoretically founded or involved people with diabetes in the development. The aim of the study was to develop and test a mobile app to support people with newly-diagnosed type 2 diabetes in health promoting behaviours. The app integrates tools from the research-based health education concept 'Next Education'.

Methods:

The app was developed and tested in 2015 using a design-based research approach involving the target group (newly-diagnosed with type 2 diabetes), research scientists, healthcare professionals, designers and app developers. The research approach comprised three major phases: inspiration, co-creation and testing. First step included observations of diabetes education and 12 in-depth interviews with the target group regarding diabetes challenges and needs in everyday life. Step two, the co-creation process, consisted of four interactive workshops with the target group focusing on app needs, developing ideas and prioritising between ideas. Finally, the mobile app was tested by 14 participants with type 2 diabetes in a period of four weeks (Table 1). Subsequently, they were interviewed about usability and perceptions about the app as a support tool.

Findings:

The final app comprised 5 major functions which were informed by needs and ideas of the target group: overview of diabetes activities after diagnosis; recording of health data; reflection games and goal setting; knowledge games; and recording of psychosocial data such as sleep, fatigue, and well-being.

Discussion:

The test results suggest that the target group found the app to be a viable tool for support, in particular concerning awareness of psychosocial health and as a means of informing and guiding them in the healthcare system after diagnosis. The app requires a wider testing. Co-creation processes were crucial in app development to promote value to the target group.