

Smartphone Technologies to Help You Quit Smoking



Dr. Alice Gerdes Geagea
PharmD, PhD, MSc Public Health

Tobacco smoking represents one of the biggest public health threats. It is the leading preventable cause of death in the world. Smoking cessation, also known as the process of stopping or quitting tobacco is hard and challenging. According to a recent study done in the US, 70% of smokers expressed the will to discontinue smoking and 50% reported having made an attempt to do so in the last year. Tobacco smoke contains many harmful chemicals and toxins. One substance, in particular, nicotine is addictive and causes dependence.

Nicotine withdrawal which includes many undesirable symptoms such as nicotine cravings, depression, anxiety, weight gain and irritability makes the whole process of smoking cessation difficult and daring. Many techniques and methods are available to help smokers overcome the addiction and most importantly prevent relapses.

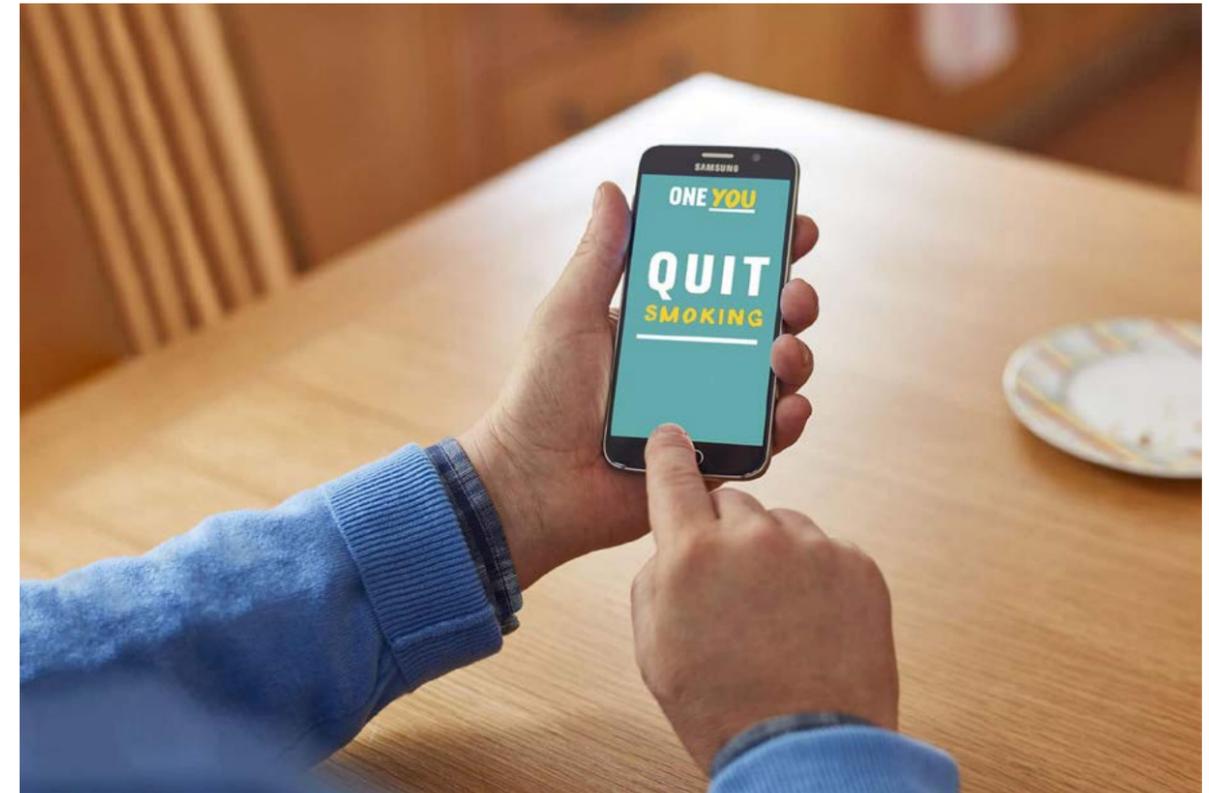
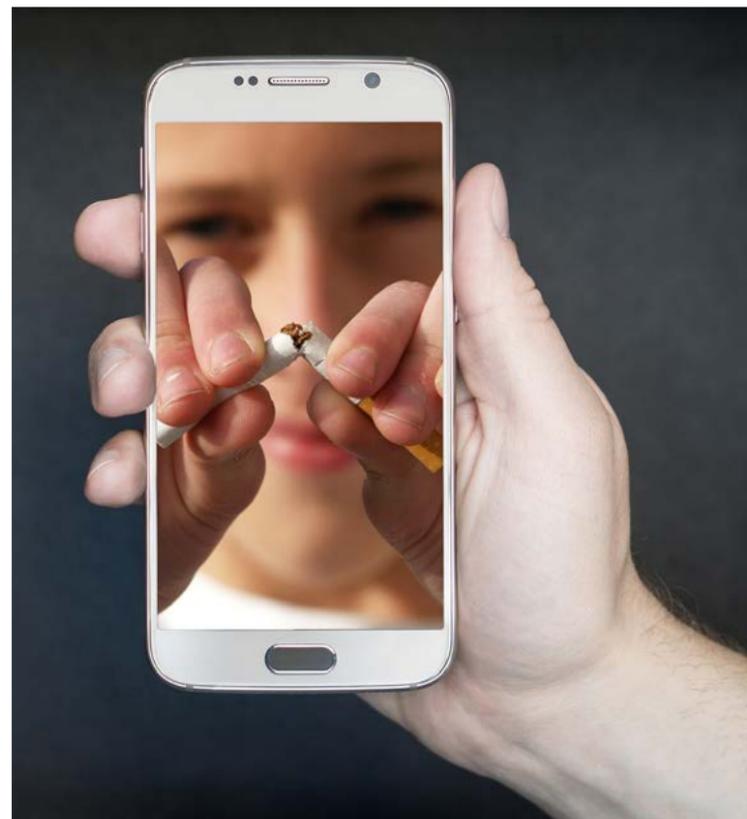
The American Cancer Society states that “Studies in medical journals have reported that about 25% of smokers who use medicines can stay smoke-free for over 6 months”. Among the medicines used in smoking cessation and that have proven their efficacy are:

- Nicotine Replacement Therapy (NRT): nicotine patches, nicotine gums, nicotine inhalers, nicotine lozenges and nicotine oral sprays. All FDA approved, deliver nicotine to the body in a way that does not involve the risk of smoking.
- Antidepressants: Bupropion is the main drug used and

has shown in many studies that it increases long-term success rate.

- Selective Serotonin Reuptake inhibitors (SSRIs).
- Varenicline which proved to decrease the urge to smoke and reduce withdrawal symptoms.
- Clonidine which reduces withdrawal symptoms.

According to the National Cancer Institute, an electronic cigarette (that is now largely used around the world) is “a device that has the shape of a cigarette, cigar, or pen and does not contain tobacco. It uses a battery and contains a solution of nicotine, flavorings, and other chemicals, some of which may be harmful. When electronic cigarettes are



used, the nicotine solution turns into a mist that can be inhaled into the lungs. The amount of nicotine in individual e-cigarettes can vary.” It is not yet known whether electronic cigarettes are safe or if they can be used to quit smoking. So the e-cigarette has not yet proven its safety and efficacy in smoking cessation.

There is no doubt that medicines and mainly NRTs are beneficial and helpful, specially if coupled with proper strategies including a gradual and calculated decrease of nicotine exposure and setting a “quit plan” and a “quit date” tailored for each patient. However, many new strategies and approaches relying essentially on smartphone applications are booming and could provide a good option for smoking cessation.

Smartphone applications are increasingly available for smoking cessation. Whether on iPhone or Android, these apps present many user friendly features with many approaches to quit smoking. One example is that you can enter the number of cigarettes you smoke per day and the app helps you cut back slowly until you no longer smoke at all. Another example is the presence of a tool that helps you track cravings and shows you data on how much

money you have saved and how your health has improved since you stopped smoking. Some apps work also by sending positive images, pictures and videos to encourage you to quit smoking. One thing many of these applications have in common is a community feature, which lets you connect and interact with other people trying to quit right from your phone – giving you the all-important support you need, without having to go to a meeting.

Many clinical trials and literature reviews tackled the use of electronic apps in quitting tobacco. Experts agree that although some smoking cessation apps have been formally researched and have proven their efficacy in small randomized trials for promoting changes in smoking, none have been tested with fully powered studies.

Mobile health app market is rapidly evolving and using smartphone technology to optimize our health and improve our well-being is a very tempting and practical solution, however, apps could be improved and optimized by better integration with the Clinical Practice Guidelines and other evidence-based practice.