**Additional file 2**

Table S1. Inclusion and Exclusion Criteria

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| **Inclusion Criteria** | **Exclusion Criteria** |
| Primary aim of the app is to help smokers quit or reduce smoking. App must clearly state that this is its main purpose | App claims it can be used to help quit smoking but this is not the primary aim of the app |
| App is available in the UK (i.e. no country restriction upon download) | App is not in the English language |
| Apps that are fully functional without any major software issues (e.g. crashes upon download or use, videos and features do not load) | App is not available in the UK |
| App targets the general public | App has less than 5 user ratings |
|  | App has less than a 4-star rating |
|  | Hypnosis apps |
|  | App is designed for healthcare professionals or specific patient groups |
|  | App targets substances other than nicotine or other forms of smoking (e.g. marijuana) |
|  | App requires compatibility with other devices or products (e.g. smartwatch, DVDs) |

Table S2. Classification of Mobile Apps

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| **Type of App** | **Description** |
| Tracker | The app tracks the number of days elapsed since the user quit smoking and/or the number of days until the user’s quit date |
| Calculator | The app primarily calculates the amount of money a smoker saves by not smoking and/or the health benefits attained by not smoking |
| Rationing | The app prompts the user to limit the number of cigarettes smoked and/or how often the user can smoke a cigarette (e.g. providing time limits) |
| Informational | The app provides information in the form of text and images to provide the user with knowledge on various aspects of smoking cessation  |
| Game | The app takes the form of a game to help users quit |
| Lung Health Monitor | The app measures and tracks the user’s lung function and health |
| Other | Any other approaches/features that have not been described above |

Table S3. Evidence-Based Smoking Cessation Guidelines

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| **Five A’s Guidelines for Smoking Cessation** |
| ASK | The mobile app asks the user whether or not they smoke cigarettes and/or use other tobacco products |
| ADVISE | The mobile app persuades and advises all tobacco users to quit |
| ASSESS | The mobile app assesses the user’s readiness to make a quit attempt. For example, the app can do this by asking questions related to importance or quitting and a self-efficacy.  |
| ASSIST | The mobile app assists or helps the user quit. It can do this in various ways: helping create a quit plan, providing counselling, providing support, recommending medications etc.  |
| ARRANGE | The mobile app arranges follow-up contact with the user or provides referral to specialist support.  |
| **Smoking Cessation Guidelines for Self-Help Materials (NICE Institute)** |
| Harm reduction | Details about harm reduction (e.g. cutting down before stopping, reduction methods, abstain) are provided |
| Benefits of quitting | An emphasis on the fact that stopping smoking will improve health far more than continuing to smoke, even at a reduced rate (e.g. reduces risk of cancer, COPD, CVD etc.) is evident |
| Planning a schedule | Advice on how to plan a schedule (e.g. set a quit date, schedule on cutting down) is provided |
| Strategies to cut down | Advice on strategies to cut down and gradually stop or reduce the amount they smoke is provided |
| Benefits of nicotine-replacement therapy | Benefits of using licensed nicotine-containing products to reduce the harm from smoking (e.g. safe, effective) is provided |
| Types of nicotine-replacement therapy | Information on the type of licensed nicotine-containing products available is provided |
| How to use nicotine-replacement therapy | Information on how to use licensed nicotine-containing products effectively to manage the cravings, mood swings and other effects of nicotine dependency and to prevent relapse is provided |
| Where to get nicotine-replacement therapy | Information on where licensed nicotine-containing products can be purchased and who is able to supply or prescribe them is provided |
| Further support | Where to get further support (e.g. additional websites, clinics etc.) is provided |