



## Digital media interventions for sexual health promotion—opportunities and challenges

A great way to reach people, particularly those at increased risk of sexual ill health

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Promoting sexual health is a public health priority in the UK, but there are many challenges. For example, universal access to comprehensive sex and relationships education in schools is lacking; prevention and health promotion are less of a funding priority than diagnosis and treatment; sexual health services struggle to meet demand; and teachers, pupils, clinicians, and patients can be reluctant to discuss sexual health in school or clinic settings.

Interventions delivered through the internet or mobile phone could help with some of these challenges. Most people in the UK have access to these technologies,<sup>1</sup> and some of those at highest risk of sexual ill health (young people, men who have sex with men, sex workers) may also be heavy users of digital technology. Digital media are particularly appropriate for promoting sexual health because access can be private and convenient and learning can be self paced and personalised.<sup>2</sup> The reach and scalability of digital interventions is potentially excellent, and interest in digital media technology for health has exploded over the past decade or so. Nevertheless, the NHS has lagged behind other institutions and commercial companies in terms of information and communications technology.<sup>1</sup> There is now impetus to exploit digital media to facilitate patient access to information and self care, and to reduce the costs of healthcare.<sup>1</sup>

Interactive digital interventions have been shown to increase knowledge of sexual health and to promote safer sexual behaviour.<sup>3-4</sup> Interactive designs can promote active learning by using imaginative multimedia features such as quizzes, games, stories, scenarios, simulations, virtual characters, animations, audio, and video. Material can also be customised for individuals in various ways, including tailoring by demographics, risk behaviour, or factors such as knowledge, motivation, or skills.<sup>5-7</sup> Best practice for designing interventions includes involving users, drawing on empirical evidence on mechanisms of change, and addressing implementation from the outset.<sup>8-9</sup> However, there is still much to learn about the

design of interventions (for example, the choice of change techniques and interactive features), the best models of delivery (for example, optimum settings, modes of delivery, “dosage,” support, or facilitation), and how to address barriers to implementation and engagement.

Although the UK has pockets of innovation, there are no national programmes to roll out interactive digital interventions for sexual health promotion in clinics, in schools, or online. Hundreds of websites and apps for health are available, but most are not evidence based. Sexual health websites and school curriculums on sex and relationships often focus on physical health (safer sex, contraception, sexually transmitted infection, etc) and do not cover content that users would like (such as building good relationships and sexual pleasure).<sup>10</sup>

The pace of innovation is outstripping capacity to evaluate the safety and efficacy of most digital interventions. The NHS Choices Health Apps Library is working with developers to ensure the safety of health apps, but there is no approval system for information websites that are not medical devices for diagnosis or treatment. We need to ensure that the health benefits of digital interventions can be evaluated and realised within reasonable timescales. Faster mechanisms are needed for commissioning research, for ethics committee and administrative approval, and for publication and dissemination of the results of evaluations.

While sexual health websites and mobile phone text services are available for particular local populations, knowledge needs to be shared nationally to avoid duplication of effort. We also need to build on evidence and experience to ensure that interventions are engaging and effective. Evaluation should be planned from the beginning to build knowledge of what works. Healthcare settings, schools, and colleges need to be able to offer reliable, fast access to digital technology, and healthcare staff and teachers need training and support to be confident in facilitating patient and pupil access to digital resources for sexual health.

Most digital systems linked with health services are designed to enhance the treatment of health problems rather than to promote health or prevent disease. However, sexual health promotion could easily be added to digital systems that are already in use—for example, electronic history taking and risk assessment, triage (with the option of self testing), and electronic decision aids before an appointment. Digital interventions can exploit “teachable moments”—for example, providing tailored sexual health advice via interactive websites or health promotion videos in waiting rooms.<sup>11 12</sup> Health promotion interventions could be added to systems such as online ordering of Chlamydia and HIV test kits, automated recall systems, online partner notification for sexually transmitted infections, and digital systems to enhance adherence with HIV treatment or oral contraceptives.<sup>2</sup> Interactive digital interventions can also offer self help—for example, with sexual problems.

The UK government has laid out a vision for realising the potential of digital health systems,<sup>1 13</sup> and exciting possibilities exist. Coordinated national efforts are needed to realise the potential of interactive digital interventions for health promotion.

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