

## **UK Health informatics Today**

### **Computerised Cognitive Behavioural Therapy for Prevention and Early Intervention in Anxiety and Depression**

It might come as a surprise to know that the World Health Organisation has indicated that depression will be the second most long term condition worldwide by 2020. Stress and related problems such as anxiety and depression are now the foremost reasons for absenteeism in the UK costing the economy at least £26 billion in lost working time (not including treatment). They are increasing, at a cost to society, the economy, the healthcare system and individual well-being. Prevention and careful management is needed.

A large number of people do not recognise that they may have a mental health problem, are unaware of support services, or are stigmatised against seeking help. Nearly half of depressed people never seek professional help<sup>18-20</sup> and many who do, do not receive adequate treatment.<sup>20</sup> Individuals find the Internet useful for finding health information and it is also used to look for sensitive or stigmatized health issues, with 40% of users looking up a mental health issue. Depression is in the top ten commonly searched terms.<sup>38</sup> The Internet can be used for condition self management.

A number of treatment models (including published UK NHS guidelines) have been suggested for anxiety and depression, including a stepped care plan where individuals receive different levels of treatment based on need.<sup>111;112</sup> Early psychological interventions are effective for common mental health problems<sup>8-10</sup> and there is now a focus on prevention and early management of these conditions to reduce impact on health service utilisation<sup>46</sup> and relieve individual suffering.

Cognitive Behavioural Therapy (CBT) is recognised as an effective treatment for depression<sup>53</sup> and anxiety<sup>11;16;54</sup> and can be delivered face to face,<sup>50</sup> as

bibliotherapy,<sup>51</sup> or through a computer.<sup>52</sup> Computerised Cognitive Behavioural Therapy (CCBT) has been the subject of a number of systematic reviews, showing that different CCBT packages work in the treatment of a number of mental health disorders among a variety of population groups.<sup>12;13;17;58;59</sup> Some packages have been seen to deliver better results than traditional therapy approaches. The NHS now recommends CCBT in stepped care clinical guidelines for anxiety and depression.<sup>11</sup> CCBT packages currently vary with different treatment schedules, module numbers and levels of therapist involvement. Uptake and attrition rates vary. Research is now focusing on the best use of different packages for varying patient groups and circumstances.

Benefits of CCBT are said to include:

- Accessible and available to all – 24/7 support
- Confidential
- Repeatable – booster sessions possible
- Cost effective
- Useful as waiting list intervention
- Can be used as prevention and treatment

Research on preventing mental health problems has focused on depression, particularly on young people and adolescents, aiming to reduce onset of the first depressive episode. Preliminary research suggests that CBT interventions may prevent the onset of depression by up to 50%, and reduce symptoms in high-risk but undiagnosed individuals. CBT seems to be the most effective therapy here, as has been shown in a number of population groups including adolescents,<sup>69;70</sup> adults<sup>71;72</sup> and pregnant women.<sup>73;74</sup>

Although results are positive, the literature highlights that the problem with delivering preventative CBT is not efficacy, but effectiveness in routine practice and a lack of trained psychologists. CCBT has potential here, particularly if delivered over the Internet. An online package could cost effectively be delivered to a large number of people and could readily be targeted to different population groups. CCBT is easily delivered to a symptomless population, aiming to prevent onset.

Xanthis, a CCBT tool designed specifically for prevention of a number of different psychological problems is being used in a number of UK public sector organisations. Accessible, confidentially to all employees over the Internet it is linked into stress policies and occupational health services. Three years of results show that 5-10% employees regularly access it. Interviews and questionnaires with users show that use of the site increases knowledge and understanding of psychological problems and that the Internet based tool is considered the most accessible form of support. A user testified that use of Xanthis prevented him from suicide linking him through to support services.

Preventative CCBT packages can be used within stepped care, chronic illness, public health, occupational and prevention models. In addition to use within a formalised NHS or an occupational health model, Internet-based CCBT can be accessed spontaneously by users, a new type of accessible and confidential support for individuals who would not access other help services. A recent study by Mckeown and Potts looking at all uses of preventative CCBT worldwide found a very small, but growing body of literature. While researchers are starting to comment on its potential, there has been little research conducted to date.

There is a large public health potential for CCBT to prevent or treat the first symptoms of disorders. However, a common problem for new interventions is their commercialisation and implementation to wider audiences. The transition from research trial to routine clinical use can be difficult. Funding models for CCBT can work against the medium's advantages. Beating the Blues is the only CCBT programme recommended for use on the NHS, yet users need to go via their GPs, who arrange payment by the PCT, or pay in order to access it. CCBT as a preventative tool for a large population needs to use the potential of its underlying technology to simplify access, requiring an alternate funding approach. Overcoming cultural and commercial barriers, including developing a financial model and encouraging individuals, organisations and health care systems to use it, will take time and more research.