

Use of technology in the prevention of psychological illness and stress management

Amy McKeown

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). By 2020 the World Health Organisation predicts that depression will be the second most long term condition worldwide. Prevention and careful management of psychological illnesses will ease the strain on the economy, health care systems and individual well being.

The UK National Health Service (NHS) currently recommends Cognitive Behavioural Therapy (CBT), as part of the stepped-care guidelines for treating stress, anxiety and depression. CBT is based on the theory that all people have unconscious belief systems that influence the way they process information, how they think, feel and behave. If those beliefs systems are distorted or confused then psychological distress can develop, resulting in damaging thoughts, behaviours and reactions.

This, the first of two articles explaining the use of technology in prevention and treatment of psychological problems, introduces computerized Cognitive Behavioural Therapy (cCBT), and its use in stress management systems globally. The follow up article (in the next edition of Stress News) describes real world case studies of different types of technology used in support and organizational stress management.

Cognitive Behavioural Therapy

In comparison with other psychotherapies, CBT is brief, highly structured, problem-orientated and prescriptive, although the optimal length of therapy varies amongst individuals and conditions. For mild and moderate depression, brief CBT of six to eight sessions over 10 to 12 weeks is usual. For anxiety the optimal range is between 7 and 14 hours of therapy. It can be delivered face to face, as bibliotherapy, or via the internet. Results show CBT's effectiveness in the treatment of a wide range of conditions including stress, anxiety, depression, addiction, obesity and panic.

However, up to half of people with depression never seek professional help and many do not receive adequate treatment. In addition, a significant number of people are unaware of support services or fail to seek help on account of the stigma attached to psychological problems.

Increasing access to treatment, promoting awareness and developing prevention services via a computer are therefore of huge importance in the management of all psychological conditions.

Computerised Cognitive Behavioural Therapy

cCBT is a generic term used to refer to a number of methods of delivering CBT via a computer. It covers a variety of packages with different numbers of modules, levels of therapist involvement, user interactivity, session time and learning methods. It is accessible, repeatable, consistent and available 24/7. In most cases, the cCBT packages are computerised versions of face to face therapy.

cCBT has been the subject of a number of academic systematic reviews, showing that different packages work in the treatment of a number of mental health disorders among a variety of population groups. The NHS now recommends cCBT in their stepped care clinical guidelines for anxiety and depression. Research now focuses on the best use of different packages for varying patient groups and circumstances.

Grime (2004) showed that cCBT can be used as an occupational treatment package, reducing stress levels in medical staff who have recently reported stress related absence. The results show that emailed cCBT moderately reduced stress and depression symptoms.

In addition to use within a formalised NHS or an occupational health model, Internet-based cCBT can be accessed spontaneously by users. MoodGYM, an Internet-based cCBT program, has already attracted high levels of spontaneous users and user analysis of the Internet shows that a large number of people use it for self-management of conditions. 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.

Prevention of stress

The focus of this article has been on the use of health technology as a treatment for stress related problems. New and exciting uses of cCBT are in the prevention and early treatment of problems, and its use in the field of stress management.

Evidence confirms that early psychological interventions are effective for common mental health problems. There is now a focus on prevention and early management of these conditions to reduce impact on health service utilisation and relieve individual suffering. The fact that the NHS Improving Access to Psychological Treatment programme and the HSE Stress Management Standards both focus on prevention rather than cure demonstrate this.

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, adults and pregnant women. Interventions that target specific, at risk, populations are more likely to show an outcome than widespread, universal ones.

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 in the delivery of universal or targeted prevention programs, particularly if done over the Internet. An online package could cost effectively be sent to a large number of people and could readily be targeted to different population groups. cCBT can be accessible and confidential; use can be repeatable and ongoing.

While researchers are starting to comment on its potential, there has been little research conducted to date. A recently study by McKeown and Potts looking at all uses of preventative cCBT found only 5 papers worldwide. Overall the results were positive with only two studies showing no effect. One of the studies of an online self help stress treatment found a significant reduction in perceived stress.

In addition to its use as in healthcare models, preventative cCBT can be incorporated into organisational policies. Its use is applicable in training, Employee Assistance, Occupational Health and stress management policies. 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 and confidential to all employees over the Internet, it is linked into stress policies and occupational health services. In some organisations it is used to fulfil the secondary and tertiary HSE Stress Management Standards, being built into the organisational stress policy.

Three years of Xanthis's results show that 5-10% employees regularly access the preventative cCBT. Interviews and questionnaires with users show that its use 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

Conclusion

The technology underneath cCBT makes it accessible for use by individuals and within organisations and by practitioners. Use of preventative cCBT packages can be built into stress policies, occupational health campaigns and training, as well as being used as an early treatment for people with problems.

Many health practitioners act as gatekeepers to health services and develop strong therapeutic relationships with patients. A biopsychosocial view of health makes each of these practitioners suitable for offering preventative psychological tools to patients, potentially as an adjunct to physical care. Integrating preventative cCBT tools into existing services extends patient care, provides a more holistic treatment and could reduce prevalence of psychological problems.

We will cover more on the specifics of use of cCBT within stress management in the next edition, looking at some real world case studies of its use in a number of ways in different organisations and the results found.

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