

Submission for the 2013 Ted Freedman Award for Innovation in Education

Project Name: The Stress Vaccine - Hospital Edition

Submitted by: Robert Maunder (MD FRCPC, Director of Research, Department of Psychiatry, Mount Sinai Hospital, Toronto, Canada, rmaunder@mtsinai.on.ca) and William Lancee (PhD, Psychiatry Research Consultant, Department of Psychiatry, Mount Sinai Hospital, Toronto, Canada, blancee@mtsinai.on.ca)

The Innovation

The Stress Vaccine - Hospital Edition is a highly individualized, interactive, e-learning training program that helps hospital workers to develop resilience to workplace stress. Originally developed as a tool to bolster the resilience of healthcare workers preparing for an influenza pandemic (1,2), it has been fully revised to address a full range of stresses that occur in hospitals.

The Stress Vaccine incorporates a diverse range of interactive tasks predicated on the principles that (a) the stresses of hospital work are inherently interpersonal, and therefore resilience starts with mastery of interpersonal skills, and (b) constructive responses to stressful events begin with *pausing to reflect*. The goal of the e-learning exercises in the Stress Vaccine are primarily to practice reflective (rather than reactive) thought and, secondarily, to bolster interpersonal skills.

The learning resources of the “Stress Vaccine - Hospital Edition” are modular and performed at the learners own pace and at their convenience.. Each module includes learning in multiple formats, including simulated interpersonal interactions that use video enactments of stressful scenarios, which are combined with personalized “dialogue” with the computer to reflect upon difficulties that are encountered and discover new options. Learning also occurs via (a) identification of ones own interpersonal style and preferences using validated questionnaires with feedback; (b) guided reflection about recent difficult interactions—identifying patterns and applying insights about ones own style; (c) practicing relaxation exercises; (d) role-playing responses to interpersonal challenges, (e) guided self-evaluation of the empathic quality of responses to challenge; and (e) the comments of videotaped peer coaches. Following multiple paths to the same goals, healthcare workers learn to increase their capacity to reflect, thus improving tolerance for the ambiguity, uncertainty and conflict which are core contributors to workplace stress.

The value of your Innovation as an agent of change

Building resilience depends on changing behaviour, which is typically both difficult and expensive (consider the resources that go into efforts to increase handwashing in hospitals, for example). The Stress Vaccine has the capacity to catalyze change by providing “virtual resources” to reduce stress that are effective and yet much more widely applicable than traditional methods of behaviour change, such as individual and small group coaching with practice over multiple sessions and practice reminders. The Stress Vaccine has proven efficacy and is designed to be widely distributed at low cost. This educational intervention’s online format

makes it virtually instantly accessible to hospital-based healthcare workers who wish to learn and participate. Additionally, because of its' innovative design and flexible application, it can be easily modified to any setting in which resilience to stress is a salient concern, by merely producing new visual materials appropriate to that setting.

The evidence to substantiate the Innovation

Chronic stress and burnout are common in healthcare workers, and lead to decreased well-being, decreased quality of care, and costs related to absenteeism and high turnover. All of these have adverse consequences for patient care and the healthcare system (3-6) and support the need for prevention.

With respect to its format, the Stress Vaccine incorporates effective learning strategies from contemporary models of continuing professional development and knowledge translation (7), including the recognition that the use of mixed-modalities is established as a best practice in continuing professional education (9). The course capitalizes on the evidence that e-learning tools are effective in facilitating learning and can be delivered to a large group of people in a timely and cost-efficient manner (8). With respect to content, the Stress Vaccine incorporates insights from a critical review of the evidence for employing various interventions to build organizational and individual resilience (2,10,11) and interpersonal determinants of stress (12,13).

The outcomes to substantiate the Innovation

In a randomized “dose finding” study of the Stress Vaccine, the course was associated with improved self-efficacy, reduced interpersonal problems and increased confidence in support and training. Furthermore, hospital workers who underused adaptive modes of coping (problem-solving or seeking support) or overused escape-avoidance for coping prior to taking the course experienced an improvement in coping behaviours after taking the course. This study also determined the optimal duration of the course (10 x 0.5 hour sessions, vs a shorter and a longer version) with respect to both effectiveness and retention of learners (1).

Further positive feedback on the program has come in the form of organizational and financial support from Mount Sinai Hospital for the revision and organization-wide application of the Stress Vaccine-Hospital Edition.

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