

From the Editor's desk

By Kamaldeep Bhui

Samurai science

Akira Kurosawa's 1954 classic, *The Seven Samurai*, received popular acclaim in the Western world, albeit the action and martial arts attracted the most attention motivating further productions, including *The Magnificent Seven* and similar films about heroes recruited to fight injustice and tyranny. Kurosawa is less well known for films such as *Ikiru (Life)*, which invites introspection and reflection on culture, life, death and the fight against cancer.^a The lack of effective treatments for stomach cancer contributes to the 'hero's' hopelessness, internal stigma and fear of disclosure to his family, and yet he is able to live his last days with more purpose and meaning serving disenfranchised communities in their fight with an uncaring (dead) administration. Red Beard, the lead character of another masterpiece, works as a senior doctor looking after patients with cancer, infections, mental illness and forensic risks; he laments his powerlessness in the face of poverty, starvation and social adversity, which he says are 'the real causes of illness'; all he can do is diagnose and then watch patients die of cancer or infection. There is little distinction between people with mental or physical illness, both being cared for in the same institution. The doctor listens to accounts of precious moments with loved ones earlier in patients' lives and consoles them as they recall times of regret, adversity, trauma and violence. Red Beard searches for better ways of preventing illness and treating patients; he is armed only with case studies and personal experience as the scientific method, with no functional magnetic resonance imaging (fMRI) or other imaging or sampling techniques. He proceeds with a warrior-like tenacity and cares not about stigma. These sentiments represent heroic efforts from a different time and cultural context but are as important today as demonstrated by the current issue of the *Journal*.

Stigma about mental illness continues to undermine global efforts to promote mental health and well-being, and to prevent mental illness (Rüsch & Thornicroft, pp.249–251). Poverty, low income, unemployment, recessions and social adversity contribute to higher suicide rates.¹ In Scotland, suicide is more common following contact with general hospitals than among people discharged from psychiatric hospitals (Dougall *et al*, pp.267–273), reinforcing the notion that physical and mental illnesses should not be treated so separately; we might better prevent suicide by concentrating on those classified as having physical as well as mental illnesses. Less than half of suicides after discharge from hospital are from self-poisoning; in contrast, an unusual method of charcoal burning was used in suicide epidemics in Japan in response to recession and socio-economic conditions (Yoshioka *et al*, pp.274–282). And it is the young in Scotland and Japan who are most vulnerable.

What resources do people have in the face of adversity? Religious practice is an important protective influence against suicide in the USA (Kleiman & Liu, pp.262–266). Clearly, religious attendance is one of many resources that can mitigate risks of suicide and poor health generally (see editorial by Cook, pp.254–255) and alongside other treatments; a resource-based conceptualisation of mental healthcare challenges deficit models of illness (Priebe *et al*, pp.256–261), but could a resource-based approach to prevention and treatment make greater impacts on the costs of mental illness and the alleviation of suffering?

Many studies move between the social and biological architecture. Nutrition is known to influence the risk of future mental illness in children² and may act through neurogenesis,³ suggesting that it may alter biological vulnerability. As an example, Rucklidge *et al* (pp.306–315) find that vitamin–mineral based nutrition is beneficial for people diagnosed with attention-deficit hyperactivity disorder. Transient psychoses are often described in the textbooks as conditions with a good prognosis, yet Quierazza *et al* (pp.299–305) show that these are likely to progress to schizophrenia in 3–5 years and should not be neglected. A dynamic fMRI study shows links between function and structure in the default mode network in recurrent depressive disorders (Nixon *et al*, pp.283–289); a second fMRI study shows that working memory network activation was greatest in people with schizophrenia, who in turn had greater activation than those with bipolar disorder; both patient groups had more activation than healthy controls (Brandt *et al*, pp.290–298). Treatments for these complex disorders need to be grounded in both the brain and social architecture. Bird *et al* (pp.316–321) offer guidelines to help researchers and consumers appraise the evidence on complex interventions.

There is a long tradition of arts contributing to the dissemination of sciences but also expressing the dilemmas faced by scientists and doctors in dealing with human suffering.^{4,5} Samurai science is crucial in the quest for a healthier and more just society. Use of the arts and film to tackle stigma and to educate future clinicians is well established,^{6,7} but might yet be extended to inspire and recruit a new cadre of research scientists in the long-standing battle to prevent and treat mental illness and promote mental health and well-being.

- 1 Hawton K, Haw C. Economic recession and suicide. *BMJ* 2013; **347**: f5612.
- 2 Jacka FN, Ystrom E, Brantsaeter AL, Karevold E, Roth C, Haugen M, et al. Maternal and early postnatal nutrition and mental health of offspring by age 5 years: a prospective cohort study. *J Am Acad Child Adolesc Psychiatry* 2013; **52**: 1038–47.
- 3 Zainuddin MS, Thuret S. Nutrition, adult hippocampal neurogenesis and mental health. *Br Med Bull* 2012; **103**: 89–114.
- 4 Kolijn E. Observation and visualization: reflections on the relationship between science, visual arts, and the evolution of the scientific image. *A Van Leeuw J Microb* 2013; **104**: 597–608.
- 5 Goldstein JL. Paradigm shifts in science: insights from the arts. *Nat Med* 2012; **18**: 1473–7.
- 6 Clift S. Creative arts as a public health resource: moving from practice-based research to evidence-based practice. *Perspect Public Health* 2012; **132**: 120–7.
- 7 Bhatnagar S. A coalition of the film industry and public health leaders. *Pediatrics* 2008; **121**: 1074.

^a I am indebted to Professor Francis Lu (Luke & Grace Kim Professor of Cultural Psychiatry Emeritus at UC Davis) for introducing me to these aspects of Kurosawa's work at conferences of the World Psychiatric Association, World Association of Cultural Psychiatry, Society for the Study of Psychiatry & Culture, and the Group for the Advancement of Psychiatry.