



The environment of mental health

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EDITORIAL



The environment of mental health

The best book ever written about depressive disorders and their treatment recommends “*deambulatio per amoena loca* [‘strolling through pleasant scenery’]... to walk amongst orchards, gardens, bowers, mounts and arbours, artificial wildernesses, green thickets, groves, lawns, rivulets, fountains... between wood and water, in a fair meadow, by a riverside, *ubi variae avium cantationes, florum colores, pratorum frutices* [‘to enjoy the songs of the birds, the colours of the flowers, the verdure of the meadows’]” [Burton, *Anatomy of Melancholy*, pt. 2: Cure of Melancholy, sect.2, mem.4, 1651].

The 18th and 19th century founders of the lunatic asylums certainly agreed with Burton. Following the introduction of “care in the community”, selling off asylums proved to be extremely profitable precisely because they had been deliberately located in pleasant surroundings, partly, no doubt, because rural locations were cheaper, but mostly because their well-meaning founders had recognised the value of contact with the natural environment. Connolly, for example, “regarded out-of-door exercise, and the provision of amenities for games and the enjoyment of the gardens as most important”. “The numerous lunatics of an indolent and apathetic nature... can often be drawn out of their sloth by an invitation to walk in the fields, gardens or vegetable garden” (quoted in Leigh, 1961)).

Although this journal has noticed that “asylums were intentionally located... with attractive grounds, selected artworks and comforting animals” and that “it seems obvious to the lay observer that such surroundings are less conducive to stress than the modern equivalent, which probably consists of dishing out antidepressants in a portakabin or a graffiti-covered concrete block surrounded by litter-strewn tarmac” (Guha, 2012), recent contributors seem to have paid remarkably little attention to the surroundings in which they practice or to the effects of contact with the natural environment. Smith-Merry, Mellifont, McKenzie, and Clenaghan (2018) aroused hopes by noting that the grass was greener on the other side of the fence, but the grass in their paper turned out to be metaphorical, though the fence was all too real. Similarly, a study of the effects of dog-assisted therapy on university students’ stress levels concentrated on the benefits of walking the dog rather than on the surroundings in which it was walked (Wood, Ohlsen, Thompson, Hulin, & Knowles, 2018), and a study of the benefits of exercise turned out to be concerned with the benefits of having an accredited physiologist rather than with the benefits of contact with nature (Furness, Hewavasam, Barnfield, McKenna, & Joseph, 2017). Even publications discussing the environment of mental health treatment seem to be more concerned with architecture

than with the wider environment (e.g., Donald, Duff, Lee, Kroschel, & Kulkarni, 2015).

The physical as well as psychological benefits of yoga, meditation and mindfulness are now well documented according to Kasai et al. (2017), but even in their research the benefits of access to the natural environment may be underestimated: the illustrations of the yoga retreat concerned show open grounds with lawns, trees and shrubberies. The control group consisted of nurses at a hospital in central Bangkok, which is not illustrated but, at a guess, gave them rather less contact with fresh air and green nature. It might have been interesting to have had a further control group which spent time in the grounds and surroundings, without the yoga.

Similarly, there are plenty of studies of military veterans. Brooks and Greenberg (2018) did note the effects of the physical work environment and factors positively impacting well-being, such as exercise, but studies of the fitness of military personnel following mental health care, such as Jones, Fear, Wessely, Thandi, and Greenberg (2018), or trying to identify probable post-traumatic stress disorder in veterans such as Leightley, Williamson, Darby, and Fear (2018) can be criticised for not taking into account the effects of the change from military roles, which tend to involve organised physical activity in rural surroundings, to civilian situations which tend to be urban and frequently less active.

Environmental economics

This lack of interest among our contributors is somewhat surprising, as there has been a growing general interest in the therapeutic value of contact with nature. The Marmot Review (2010) noted that “improving the availability of green spaces across the social gradient will help reduce health inequalities”. Setting this in economic terms is difficult. The UK Council for Psychotherapy attempted to find a methodology for putting a cost to mental health (Fujiwara, 2014), which was followed up by the Fields In Trust charity in a 2018 report *Revaluing Parks and Green Spaces*. Using the British government’s own Green Book methodology for valuing non-market goods (H.M. Treasury, 2018) they concluded that “being a regular park or green space user is associated with a reduction in GP [general practice] costs of £3.16 per person per annum”. In a substantial survey, they found that “subjective well-being is significantly higher for park and green space users”. GP costs are, of course, only a small proportion of the total health service budget, so the real financial benefit to the National Health Service is likely

to be considerably more than the £111 million p.a. produced by their calculations.

The Fields In Trust report also, incidentally, found that Black & Ethnic Minority groups, and poorer people in general “value parks and green spaces more... once income weighting is accounted for”. This was born out by an interesting comparison of what made people happy in Bolton in 1938 and 2010 – “Up until now public leisure provisions have been particularly valuable to the less well-off, not because they have been more likely to benefit... but because most of these services [... parks, playing fields, the countryside, the coast...] have been free... in effect, access has been a right of citizenship. In the future it is likely to become more difficult for the public sector to be run in this way, particularly when governments are concerned with cutting the public financial deficit” (Haworth, 2018). The Fields In Trust report, putting the value of these resources into stark cash terms becomes increasingly relevant in these circumstances.

There is substantial evidence to show that access to green space has a beneficial effect on mental health. There is even [the psychologist’s delight] a twin study (Cohen-Cline, Turkheimer, & Duncan, 2015). A literature survey on the evidence of benefits for people living with dementia from access to the natural environment (Clark, Mapes, Burt, & Preston, 2013) found, as might be expected, that “the evidence is limited and often qualitative. However, general findings can be grouped into:

- Improved emotional state: reduced stress, agitation, anger, apathy and depression
- Improved physical health: skin health, fitness, sleeping patterns, eating patterns
- Improved verbal expression
- Improved memory and attention
- Improved awareness: multisensory engagement and joy
- Improved sense of well-being, independence, self-esteem and control
- Improved social interaction”

As a caveat they noted that these benefits are generally short-term, stopping once the activity ceases, and that it is not known what potential benefits and cost saving could be made from a longer-term connection with nature. The greatest benefits appeared, from most of the studies quoted, in people with mild to moderate dementia. Interestingly, though numerous studies mentioned hazards, risks and practical problems created by taking people with dementia into outdoor surroundings, none of them reported any deleterious effects.

Clark et al. quote figures to show that the average person with dementia in the UK costs the economy £27,647 p.a. [which is more than the UK median salary]. Most of this expenditure is accounted for by institutional social care on the one hand, and informal care costs on the other. Clearly, if contact with nature can make even the slightest reduction in this figure, the national financial benefit calculated by Fields In Trust will be substantially increased.

Clark et al. were surveying the literature regarding people who already had dementia, they were not concerned with any preventative effects. These are notoriously difficult to substantiate statistically. Abbott et al. (2004) looked at some evidence that “walking may have a delaying effect on the onset of dementia”. President Trump has been criticised for spending so much more time playing golf than any of his predecessors, but it has been suggested that “the restorative effects of all that greenery” may well be stopping his mental state becoming even more unstable (Burkeman, 2018).

Colouring books

A curious craze sprang up a few years ago for colouring-in pictures as a form of mindful self-therapy. A search on Amazon Books [29th January 2019] under “adult colouring books” brought up an astonishing 76 pages of entries. Of the first 100 titles displayed, 87 of the covers focussed on plants or animals [including fantasy animals – unicorns get a good showing], the vast majority being pictures of flowers or trees in recognisably rural surroundings. Only one out of 100 was recognisably urban – the *City Coloring Book*. [The other non-rural titles, incidentally, included *F*ckity F*ck F*ck: The Swearing Coloring Book*; *Crash Bandicoot*; *Delicious Desserts*; *The Sex Position Coloring Book*; *Disney Villains*; *Victorian Fashion*; and *Sugar Skulls at Midnight*]. Rather to my surprise none of the first 100 titles had cover illustrations of recognisable machinery – cars, steam engines, aircraft, etc. Assuming that the publishers have studied their markets, it seems that adult scribbling self-therapists recognise the therapeutic value of at least vicarious contact with nature.

Conclusions and recommendations

There is ample evidence of the dangers of urban living – children growing up in heavily polluted areas are “three to four times more likely to have depression in late adolescence compared to those living in the least polluted areas” (Roberts et al., 2019). Evidence for the positive benefits of contact with the natural environment has tended to be anecdotal. Clay Cockrell, the founder of Walk & Talk [see <http://www.walkandtalk.com/bio.html>] claims that his clients have benefitted enormously from psychotherapy sessions conducted while walking in Central Park, for example. I have not come across any anecdotal reports that suggest any negative effects. More recently however, credible scientific evidence has started coming to light. Atchley, Strayer, and Atchley (2012) found measurable improvements in creative reasoning through immersion in natural settings, and a meta-analysis by Twohig-Bennett and Jones (2018) found evidence that spending time in green spaces made sufficient difference in reducing the risk of type 2 diabetes, cardiovascular disease, depression and stress disorders to “have a meaningful clinical impact”.

All the evidence I have seen suggests that the people responsible for designing the hospitals and other facilities used for treatment should give serious consideration to

making the grounds and surroundings as green as possible; that researchers into anything from yoga to the psychological problems of ex-military personnel should take environmental effects into consideration; that therapists should consider encouraging their clients to interact with the natural world; and that all of us should simply get out more.

Disclosure statement

No potential conflict of interest was reported by the author.

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