

Editorial

Green prison programmes, recidivism and mental health: A primer

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Although the USA has the largest prison population in the world, most prison rehabilitation programmes have been criticised for lacking any demonstrable efficacy, ultimately 'having no appreciable effect on recidivism' (Lipton et al., 1975, p. 25). Yet, since the 1990s, prisons around the USA have witnessed the growth of so-called green prison programmes. Prominent examples of such initiatives include the Insight Garden Program (IGP) administered in the San Quentin, California (CA) State Prison, The Garden Project in San Francisco, CA, the Sustainability in Prisons initiative administered throughout Washington State prisons, the Sandusky County Jail Gardening program in Ohio and perhaps most notably, the 'GreenHouse' (GH) program in Riker's Island, New York City. While variations exist, 'green' prison programmes essentially provide a form of eco-therapy to prisoners – which is prescribed physical and psychological therapy through nature-based methods administered by trained professionals. Participation in these programmes usually involves engaging in gardening and horticultural activities such as landscaping, cultivating plants, green roof gardening and learning about environmental stewardship and caring for nature and animals. Many of these programmes also provide basic vocational education, practice mindfulness and teach prisoners social skills, such as how to work effectively with others (Jiler, 2006). These programmes should be a focal point of interest to both research and public policy for two outcomes: (1) low recidivism rates and (2) improved mental health. Self-published recidivism rates of graduates of green prison programmes are exceptionally low, ranging between 10% and 24% depending on the specific programme (Gilbert, 2012). Unfortunately, the data underlying these numbers are often not made public. They come mainly from internal programme evaluations based on small and self-selected samples that often have no clearly

defined or matched reference group. Moreover, no systematic long-term evaluations of such programmes have been conducted, partly because obtaining criminal record data for prisoners after their release from such programmes is often challenging. Nonetheless, limited post-conviction release data for one of the largest ‘green prison’ programmes in the country, the Riker’s GreenHouse/GreenTeam programs (https://thehort.org/horttherapy_greenhouse.html), were made available by Laichter (2008). New York state identification numbers were collected by the GreenHouse staff and submitted to the New York State Division of Criminal Justice Statistics, who tabulated and aggregated unsealed convictions post-release from Rikers for 568 formerly incarcerated GreenHouse and GreenTeam program participants released between 1999 and 2007. In order to gauge the efficacy of these programmes, I compared their 1- and 3-year reconviction rates to those for (1) New York state as a whole over the closest matching period for which data are available (2001–2008), (2) the latest national/federal statistics (2005) and (c) Riker’s long-term average reconviction rate for the general inmate population (Figure 1). It is clear that the 1- and 3-year recidivism rates of prisoners released from Riker’s Green program are significantly lower than those for all prisoners released in the state of New York during the matched period (1 year – 8.92%, $Z = 5.03$, $p < 0.01$; 3 years – 10.17%, $Z = -4.89$, $p < 0.01$, proportion tests). It is of note that the recidivism rates for New York state prisoners are almost identical to the national numbers, which have changed little since 1983 (BJS, 2015). Similar differences are observed for smaller green prison programmes, such as the IGP in San

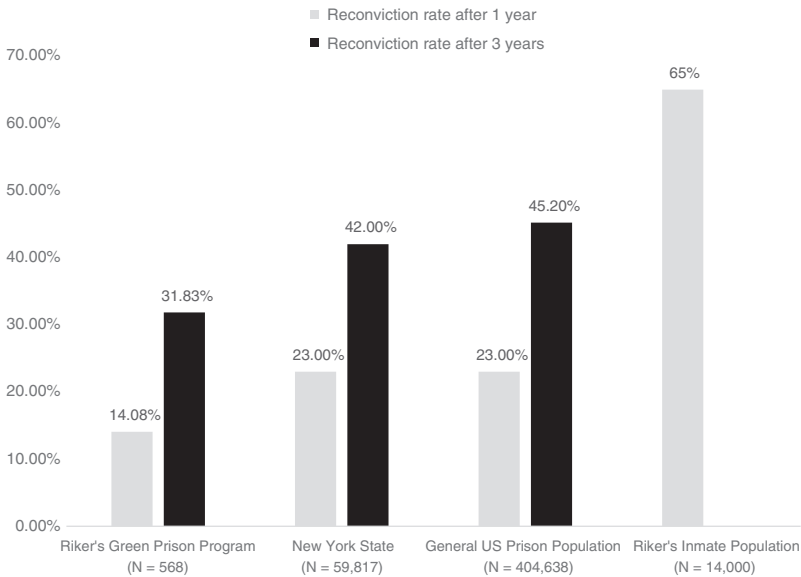


Figure 1: Recidivism rates of Riker’s Green program compared with state, national and prison average

Quentin, CA. Out of the 117 IGP prisoners who were paroled between 2004 and 2010, only 10% returned to prison within 3 years (Benham, 2014). This is significantly lower than California's average recidivism rate (64%) over the same period (CDCR, 2014; $Z = -12.16$, $p < 0.01$).

The success rate of green prison programmes is not entirely unexpected. Prison environments are often bleak, chaotic, overcrowded and isolating, with little access to nature. Garden programmes offer an opportunity for relaxation and relief from such harsh social environments (Lindemuth, 2007). Environmental psychology – or the study of how people interact with their sociophysical environment (Gifford, 2014) – can offer valuable insights into the success of these programmes. A recent meta-analysis of over 240 studies, for example, provides support for the physical and mental health benefits of nature-assisted therapy in a variety of clinical settings, from treating physical pain to mental illness (Annerstedt and Währborg, 2011). Long-standing research in environmental psychology and cognitive neuroscience has shown that nature is restorative; even brief exposure to the natural environment can promote physical and mental health, including improved cognitive functioning (Kaplan and Kaplan, 1983; Ulrich, 1984), psychological well-being and lower stress and blood pressure (Ulrich et al., 1991; Selhub and Logan, 2012; MacKerron and Mourato, 2013; White et al., 2013; Bratman et al., 2015). Exposure to nature may also promote cooperative behaviour and pro-social values (Zelenski et al., 2015).

Some of these findings have been replicated in prison populations. Moore (1981), for example, found that cells with window views of grass and trees are generally associated with fewer prisoner sick calls. Results from qualitative interviews with (former) green prison programme participants can help to illuminate some of the mechanisms that contribute to the success of these initiatives. For example, garden programmes often promote feelings of purpose, self-efficacy and self-worth among prisoners who then feel less depressed, less aggressive and more relaxed (Waitkus, 2004; Laichter, 2008; Benham, 2014). The clinical relevance of green prison programmes has also been compared with other 'new generation' rehabilitation initiatives. For instance, a randomised trial with 48 San Francisco inmates showed that nature therapy was significantly better for improving psychosocial functioning, reducing risk taking and lowering substance abuse and depression (Rice and Lremy, 1998; Richards and Kafami, 1999). Yet, the long-term efficacy of 'green' prison programmes has not been systematically evaluated. Moreover, existing studies tend to be based on relatively small samples, often lack untreated or 'treatment as usual' controls or comparison groups of prisoners who participate in other (or multiple) rehabilitation initiatives. Nevertheless, these results are promising and should capture the attention of scholars so that larger scale, long-term systematic research can be instituted, which, in turn, could help practitioners press public policy makers for this potentially cost-effective method of reducing long-term recidivism and improving the mental health of society's prison population.

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