

An Evaluation of the ARG UK Prison-based ‘Improving the well-being of offenders and their families by re-connecting them with the natural world’ project funded by the HMPPS Innovation Grant Scheme.

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Theme 4 - Improving Health and Well Being

Introduction

This report sets out case studies and findings from an evaluation of the Amphibian and Reptile Group (ARG) UK’s ‘**Improving the well-being of offenders and their families by re-connecting them with the natural world**’ project, conducted between March 2022 and March 2024 by researchers from the Healthy and Sustainable Settings Unit based at the University of Central Lancashire.

Background and Context

Health and Prison

Prisons globally are characterised by high levels of ill health and social disadvantage (Ismail and deViggiani, 2018), complex health and social care needs, aggression, violence, substance misuse and histories of trauma (Baybutt, et al., 2019). The high prevalence of mental ill health (WHO, 2023) is affected by enforced solitude, violence, a lack of meaningful activity and isolation from social networks (Woodall and Baybutt, 2022). Alongside this, the capacity of the prison estate in England and Wales is expanding, with a changing demography, creating new pressures and demands (*ibid.*). For example, an increasing ageing population which brings higher incidences of age-related ill-health requiring involvement from social care and the need for appropriate age-related interventions (Ridley, 2021). Furthermore, health and social care implications for women’s prisons are distinct from men’s prisons with, for example, higher incidences of self-harm (HMIP, 2021).

Nature-connection in Prison Environments

The Biophilia hypothesis posits the notion that humans have an innate tendency to seek connections with nature (Wilson, 1984). Research has shown that exposure to nature (for example, through guided walks) has tangible health and wellbeing benefits (Lim et al., 2020). The therapeutic impacts of gardening are also well-documented (DeIStesto, 2022), offering specific benefits in prison settings such as a self-perceived improvements in aspects of mental health and wellbeing such as confidence, and sociability (Farrier et al., 2019), decreased depression and increased self-esteem (Lee et al., 2021), knowledge and vocational skills (Ascencio, 2018). Historically, prison gardens are generally not designed to impact specifically on therapeutic rehabilitative or behavioural outcomes. However, research in prison environments suggests that access to, and interaction with, nature leads to improved physical, emotional and mental health and wellbeing, as well as showing an increase in pro-social behaviour (Toews, Wagenfeld, & Stevens, 2018). Prison-based horticulture linked with

environmental sustainability programs are gaining increased attention (Sustainability in Prisons Project, 2019).

Amphibian and Reptile Group UK

ARG UK is a registered charity (Charity number 1165504) committed to the conservation of native amphibians and reptiles and their natural environment by supporting a network of volunteer amphibian and reptile groups and developing an outreach and education programme for the wider public. ARG UK aims to be inclusive and welcoming to all, and as a part of this core ethos reaches out to individuals and groups who for a variety of reasons find it harder to connect with the natural world, to help them better understand and experience our native wildlife.

Improving the well-being of offenders and their families by re-connecting them with the natural world

ARG UK secured a two-year Health and Wellbeing grant from the HMPPS Grant Award programme in partnership with the MoJ Sustainability Team and the Healthy and Sustainable Settings Unit (HSSU) at the University of Central Lancashire (UCLan). This project developed a new programme to work with prisons across the UK on native wildlife, particularly amphibians and reptiles. The programme incorporated a diverse set of 14 prisons plus one PIPE, including: young people (four prisons), older and physically disabled prisoners (two prisons), general population male prisoners (six prisons), women (2 prisons and one PIPE). At each establishment ARG UK offered a series of classroom and practical ecology sessions to share information about amphibian and reptile identification, ecology and conservation issues, and where possible prisoners using photo elicitation methods. Participants had the opportunity to have 'hands on' experience, pond dipping to survey for frogs, toads, newts and looking out for reptiles including grass snakes, common lizards and slow-worms. Some prisons have adders nearby, and ARG UK encouraged learning about how to interact safely with this much misunderstood snake. ARG UK also engaged in a programme of habitat creation at some establishments – digging ponds and creating areas for native reptiles to hibernate and bask, as well as signposting new interpretive nature trails for prisoners and their families. As well as benefitting the wildlife, the funding thereby enabled the creation of a more attractive and engaging environment for the wider prison community.

Partnership working

The partnership with HSSU (UCLan) enabled linkages at sites 1, 2, 4 and 5 (see Table 1) with the Greener on the Outside for Prisons (GOOP) programme facilitated by HSSU. Some of the participants were also enrolled on GOOP projects, and some of the pond and wildflower garden work took place in spaces where GOOP had a history of developing nature-focused activities with prisoners, prescribed via health services in the prisons.

Study Design

The study was framed using case study methodology to examine five sites in the 'Improving the well-being offenders and their families by re-connecting them with the natural world' project in greater detail – capturing, analysing, synthesising and interpreting rich in-depth data to generate knowledge about how and why the programme worked (or didn't work) in contrasting contexts. The approach was collective, drawing learning from the similarities and differences between multiple cases; and instrumental, using the cases to build broader understanding of prison-based horticulture (Stake, 1995). Informed by a transdisciplinary perspective, the approach combined a qualitative and quantitative data collection methods to capture the multi-

faceted nature and complexity of the cases and enable an integrated holistic perspective (Yin, 2009), focusing not only on their constituent parts but also on how they function as bounded integrated systems (Stake, 1995). Case study analysis involves looking for patterns and recurrences across multiple data sources (*ibid.*). Data was therefore analysed using thematic analysis, following Braun & Clarke (2021), using NVivo 14 Software. Focusing first on each case separately, the individual data sources were analysed before focusing across the different types of data for convergence and divergence. This was followed by cross-case analysis, illuminating similarities and differences (Gray, 2018). The study also focused on multiple scales: the institution-level cases are supported and illuminated through narrative case stories of individual participants. The data collection took place over a 15-month period (November 2022-January 2024).

Study Aims and Objectives

The study aimed to:

- Explore the wellbeing impacts (including mental health improvements and increased connectedness to nature) resulting from the 'Improving the well-being of offenders and their families by re-connecting them with the natural world' project, using a mixture of quantitative measures and qualitative data.
- Highlight learning from the project which will contribute to enabling the project to be scaled up and transferred to other prisons.

To achieve this the team engaged in participant observation in ARG UK-run sessions and undertook focus groups with prisoners and staff to explore and analyse the impact of the 'Improving the well-being offenders and their families by re-connecting them with the natural world' programme.

Data Collection

A mixed-methods approach was used to ensure rigour. Data collection activities planned for the different population groups at each site comprised:

Stakeholders/Staff

1. Discussions were held with key staff from each of the five case study sites to discuss potential site-specific activities for the project.
2. Staff participated in initial ARG UK planning sessions with a specific group of prisoners who were chosen to work on the project in their prison. Research staff made notes on decisions made regarding the planning, implementation and delivery of the ARG UK activities and provision for each site.
3. Research staff remained in communication with key staff for updates and to arrange focus group data collection towards the end of the project.

People in Prison

1. Focus groups were held with the cohorts of prisoners who took part in ARG UK activities (total n=45) in the five case study sites with staff (n=5) being present during some sessions (see individual case studies). All prisoners participating were employed in the prison Farms and Gardens teams, and therefore by the very nature of this were security cleared to work with tools and in open spaces and already generally have better mental health many than others in the prison (prisoners with poor mental health or who are recognised as mentally unwell would not be cleared by security due to

potentially high security risks). All were invited to take part in the evaluation, but as this was voluntary all participants self-selected to be in the study. Additionally, some participants had conflicting appointments (e.g. medical) which meant they were unable to participate in all sessions. These focus groups explored personal experiences of taking part in this project in-depth, differences between sites, the enablers and barriers to its effectiveness, and recommendations for service delivery and impact on health and wellbeing which can be used to inform the scaling-up of the project.

2. Observation of activities / green spaces under development took place at the case study sites.
3. Anonymised questionnaires to monitor self-perceived changes in health and wellbeing (Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS) and Nature Connectedness Index (NCI) were collected during an initial visit at the starting point of participants enrolment on the programme to collect baseline data. The intention was to collect follow up data on the second visit, enabling changes to be monitored. However, the turnover of prisoners was such that in four of the five sites, it was not possible to collect the follow-up data.

	Sites / Participants	Date	Baseline	Date	Continuation
1	Men's High Security Gardens Team (VP Prisoners)	26.01 .23	11 participants (9 prisoners plus 2 members of staff)	17.01 .24	11 participants (9 prisoners plus 2 members of staff)
2	Men's Category C #1 Gardens Team	21.03 .23	8 participants: (7 prisoners plus 1 member of staff)	19.01 .24	12 participants: (10 prisoners plus 2 members of staff)
3	Women's Closed #1 Gardens Team / Clink Team	16.05 .23	4 participants: (3 prisoners plus 1 member of staff)	24.01 .24	11 participants (all prisoners)
4.	Men's Category C #2 'Super Enhanced' Prisoners (J Wing)	24.08 .23	3 participants (all prisoners)	17.01 .24	7 participants (all prisoners)
5.	Women's Closed #2 Gardens Team	24.01 .23	12 participants (10 prisoners plus 2 members of staff)	30.01 .24	9 participants: (8 prisoners plus 1 member of staff)
	Total Participant Numbers		38: 32 prisoners and 6 staff		50: 45 prisoners and 5 staff

Table 1: Details of participants in case study sites.

Data Analysis / Methodology

In the initial study design, a steering group comprising the ARG UK Project Lead, the HMPPS Sustainability Lead and UCLan HSSU researchers selected 5 case study sites from a wider pool of 14 prisons and one prison PIPE Unit that ARG UK were delivering the programme in. The prisons were chosen for differences: a male high security prison in a rural setting; a male category C prison in a rural setting); a women's closed prison in a rural setting); a male category B prison in an inner city setting); and male category C training prison in a rural setting. As the project progressed, continued access to some prisons was more difficult than others. Initially, the ARG Research Lead and the researcher had made initial visits and held focus groups at the Men's Cat B on 21st February 2023 (n=4 participants) and the Men's Cat C Training Prison on 24th August 2023 (n=7 participants). Difficulties in securing follow-up visits meant that eventually it was decided by ARG UK, the MoJ Sustainability Team and the research team to replace these sites with two other prisons in which progress was being made: a male category C prison in rural setting and a second female closed prison in a rural setting. Whilst this was not as representative of as wide a range of prisoner/prison categories as originally intended, there was a need for pragmatism to enable access to the prisons and capture progress on the ARG UK programme within the project timescales. It should be noted that even when prisons are of the same category, and with a similar prisoner demographic, there are still large variations from site to site which can impact on project development, delivery and factors for 'success'. Issues that all the prisons faced to varying degrees were short staffing levels and changes in staffing, which meant that progress in all the sites was hampered by the number of prisoners who were willing and able to work on the individual projects at any one time. This meant that ARG and the research team had to revise the initial idea to revisit approximately three months after the initial visit, until sites had actually made progress, which varies in each prison.

All qualitative data (focus groups and notes from stakeholder meetings) was uploaded to a qualitative software programme (NVivo14). Thematic analysis was undertaken on the data using Braun and Clark's (2021) approach. This involved an iterative process of reading, identifying key codes, grouping codes into sub-themes and finally creating themes that were reflective of all views expressed. Due to the small-scale nature of the funding, there was not a control group. However, the approach triangulated different qualitative data sources to form a robust small-scale, appropriate evaluation.

Ethics and Practical Considerations

Prisons are probably one of the most challenging environments for conducting systematic research – because of strict access regulations for external researchers, stringent ethical requirements and other factors discouraging research planning and implementation. Approval was granted by HMPPS (via NRC application) and from UCLan's Health Ethics and Integrity Unit, prior to commencing the study. Data was collected, stored and archived according to UCLan's Data Management Policy.

Key ethical considerations were addressed including informed consent and the vulnerable situation of prisoners: Participant information sheets used plain English and explained the project in simple language to take account of any possible variations in literacy levels. Written consent for the audio recording of participants was obtained from all participants¹ during the focus group session, and for monitoring forms at the start of data collection.

¹ With the exception of the Men's High Security prison, where the Security Team denied the request for the researcher to bring an audio recorder on site.

Findings

Findings are presented as individual case studies.

Case Study#1: Men's High Security

This prison has a population of over 800 prisoners, but only a very small fraction work in the gardens (approximately a dozen men). All the prisoners on the Gardens Team are from the VP wing of the prison. It is the highest security prison involved in this project, and the only case study site in which the research team were declined in our request to bring in an audio recorder to record a focus group, hence the lack of participant quotes in this case study.

Following on from preliminary classroom-based discussion sessions, to explore and increase their understanding of the natural world using amphibians and reptiles as a central theme, the prisoners were involved in creating a series of new ponds and wildlife areas. The first of these were hand dug by the prisoners, but for a subsequent larger pond, a digger was contracted by the project to undertake the main excavations. The prisoners then finished the profiling and laid the underlay and liner.

The ARG Project Lead and a researcher visited on 26th January 2023. During the first session, the ARG Project Lead conducted a session of 'practical ecology' with the group. There was a mixed opinion on wildflower areas: some saw them as good for biodiversity, others as untidy and attracting rats. However, in general, there was a desire for more of these spaces on the grounds. Gardening activities were described in ways that were positive for the prisoners' wellbeing, with one stating that it helps you "*forget where you are*" when you are a prisoner. It was acknowledged that not many prisoners benefitted from the existing greenspace within the prison. Most of the 800 prisoners (and some staff) in the prison hadn't seen the existing pond area. Conversely, there were concerns that if they created a new pond in a more accessible space, other prisoners would abuse it.

The men considered themselves to be in a "*privileged position*" to work in the gardens, which was borne out by the low turnover between the first ARG UK visit and second visit to the site. On the second visit, the group working on the project was largely the same (in that seven out of the nine men in on the second visit had been present in the initial session). This is mainly due to the long length of sentences at the prison and the low turnover of men working on the gardens. Within the group, each member appeared to have a clearly defined list of tasks they were responsible for (e.g. looking after the chickens, mowing, growing vegetables).

At the time of the second visit (17th January 2024), the researcher took part in a focus group with 9 participants (7 of whom had been present during the first visit). The group was mixed in terms of age range. The first pond was in progress and has been dug down to the correct depth. This had been a challenge for the men for a number of reasons. Firstly, the ground is solid clay. Secondly, due to the regime of the prison a 'workday' is quite condensed. This made working on this project slow-moving as tools had to be unlocked and then locked away (accounted for) as well as the roll call of the men confirmed. This was a source of frustration for the team working on the project, but one positive change since the initial visit by ARG UK was that the Gardens Manager had gained approval from the Governor and Security to have three 'enhanced' prisoners to work out (supervised) over lunch specifically on the project, which aided progress.

The group seemed concerned about declining levels of biodiversity and mankind "*ruining*" nature. However, during 2022-2024, the ARG UK team has focused on developing additional natural habitats both within and external to the prison including several ponds and the wildflower areas, and this has attracted increasing wildlife: ducks, pheasants and voles, birds of prey (a

kestrel and buzzards), woodpeckers, spiders and dragonflies which were noted by the prisoners, as were frogs. The Wyndlesham Trophy judges (2023) commented positively on the increase in the prisons' wildlife, which was a source of pride to both staff and prisoners. The group were also positive about the ARG signage around the ponds and wild garden.

The second visit was during winter 2023-24 and the prison Gardens Team had temporarily paused pond/wild garden related activities and were concentrating on painting and refurbishing the gardens. It was snowy and icy, the existing pond was frozen and the wildflower garden had been trimmed for winter and was uncharacteristically pruned.

The men described working in the gardens as the "*best job in prison*" and said how much they enjoyed working on specific projects, like the ones developed with the ARG UK. The ARG UK Project Lead was described by the Gardens Manager as "*great...really helpful*".

Case Study#2: Men's Category C #1

This prison has a population of over 460 prisoners. Up to 15 men work in the Gardens Team at any one time. The grounds are large and there are many different activities running simultaneously with associated NVQ qualifications, as well as a Horticulture course being run by NOVUS (The Manchester College) as part of the education provision.

At this prison, the project was focusing on two aspects. The first concerned creation of two wildlife ponds, and also resolving on-going issues with run off running along the side of the prison and flooding the area around an accommodation block during wet periods. With additional inputs from the Chair of the local Amphibian and Reptile Group, David Orchard, mitigations have been put in place to divert the flow of water more safely, and to create additional habitats for wetland species.

In addition to pond creation, the prisoners have been working on developing interpretive materials and new 'round the world' themed areas, for the visitors' garden. These activities have encouraged them to problem solve and think creatively about how readily available materials can be up-cycled to provide fun and interactive interpretive boards and games for their visitors' and families.

Gardening activity in the prison has two distinct elements: 'Horticulture', which is focused on understanding the principles of horticulture and based in the Education Dept., and the Gardens Team who work on the main prison estate performing more usual gardening in-prisons tasks (includes mowing lawns, growing fruit, propagating, and planting out plants and flowers). The ARG Project Lead and a researcher initially visited on 21st March 2023. Men from the Gardens Team had undertaken some preparatory work with the gardens staff on several plans for the development of new ponds, that they presented to the ARG UK Project Lead on their initial visit. The pond was intended to be implemented in the grounds between A and B wing. They also discussed the Visitors Garden, to include plants from around the world (the Alpines, Australia and New Zealand, North and South America, Asia [Japan and China]), with features to include raised ponds, bamboo, a 'waterfall', and signage, aimed at children, made by the woodwork team (in Prison Industries). C Wing's gardens were also mentioned, as a place for signage of wildlife. The men appeared to have a strong sense of ownership of the green spaces in the prison that they had a *responsibility* to take care of its appearance.

For the follow up visit on 19th January 2024, the researcher conducted a focus group with 10 prisoners and two staff from the Gardens Team. The turnover had been so great since the initial visit that none from the original group remained.

Prisoner Quotes:

The pond area is on two tiers. So you've got the pond down at the bottom that runs along, which has got the koi carp in it and then you've got like a dry stone wall. And then a nature pond with newts and things.

I liked building the pond and seeing the results after...job satisfaction.

Staff Quotes:

[The ponds] was something that we've done on different projects with the lads over the years. And [when the ARG staff member] came in, she gave us information on the top pond because we used to filter the water at the top ponds, and said you can't do that because the newts don't like filtered water'. So we stopped that...

Doesn't matter what skill level they have, all that matters is that they get something out of it [...] We have discussions about certain things. And they say 'can we try this?' If it works it works, if it doesn't it doesn't.

Case Study#3: Women's Closed #1

This prison has a population of over 280 prisoners. ARG UK had been liaising with the prison since June 2022, when after a preliminary introductory site visit, a follow up 'pond day' was arranged in August 2022 to restore the large ornamental pond located near the accommodation blocks (outside of gardens area) which had become very green and unsightly. The prison team were joined by a volunteer work party of 16 MoJ staff members coordinated by Bea Finch (Project Lead (Sustainability RCSG) HMPPS Rehabilitation and Care Services Group, RCSG), who worked alongside a group of 8 prisoners and four prison staff to drain, re-profile, re-line and fill the pond. This was an exhilarating and positive day, with staff and prisoners working in harmony to set up a bucket chain to drain the pond and sieve the debris to rescue any wildlife, reprofile using hand tools, lay out the liner as a group and fill. The pond has since provided a mindful space, with many of the prisoners commenting that they enjoy sitting there and listening to the waterfall, and the prison were very proud to win two awards at a regional 'In Bloom' event for Best Neighbourhood Project and Best Themed Entry. In subsequent follow up visits (to repair a leak) the prisoners were able to find and identify several widespread amphibians - common frog, common toad and smooth newts, which quickly colonized the newly filled pond. The prisoners also proudly showed the ARG Project Lead and researcher mini ponds they had created (themselves) in the gardens area from found materials in the poly tunnels they have responsibly for, and in the ornamental garden next to the horticulture offices.

Following on from the activity day the prisoner cohort were asked to further help the project by piloting the project questionnaire. Angela Julian (ARG UK Project Lead) and Bea Finch (MoJ Project Lead) again visited on 10th November 2022, and worked with two prisoners to discuss the questions and statements in the draft Nature Connectedness Index and elicit their understanding of what each phrase meant, and where these proved overly complicated, ambiguous or hard to understand, how the language could be changed or simplified. It was believed that this would reduce barriers for other prisoner cohorts to engage. The women engaged enthusiastically and appeared happy to share their views and opinions about the statements provided and made lots of constructive suggestions.

The ARG UK Project Lead returned on 16th May 2023 with a researcher. For this visit, the participant numbers were low (n=3). The group was originally larger, but they were unsettled

and some of the women pulled out of the session at the last minute due to anxiety. The group talked about which green spaces enhanced prisoners could access. The women spoke about how working in the gardens takes them away from the prison and gives them a degree of autonomy. They also agreed that working in the gardens had made them appreciate nature more. After the session the ARG UK Project Lead and researcher had a tour of the existing pond area to be developed as part of the project and a garden in the Psychologically Informed Planned Environment (PIPE) area, a contained environment for women living on that wing. The ARG UK Prison Lead was able to return on the following day, when a long sentence prisoner who was enthusiastic about the project encourages six other women to help re-lay the pond waterfall. These women had previously worked with the ARG UK Project Lead to take part in the pond clearing task.

For the final ARG visit with the researcher (24th January 2024) for the formal project evaluation, none of the original group remained. There are usually approximately 15 women working in the gardens. The women work in the gardens from 9-11.45am and 1.30-4pm on weekdays (with a half day on Fridays, indicative of the regime in most prisons we visited). For the ARG UK session, it was a larger group than the initial visit (n=11), which in itself was comprised of two discreet groups: the Gardens Team and the Clink Team (responsible for produce for the Clinks restaurants, whereby the women can work towards/achieve City and Guilds Awards for participation). The ARG UK Project Lead conducted another practical ecology session, as the group was completely new to her. The group had a discussion about the pond which was already in place at the prison. There were issues related to the lining (the pond had been leaking) and the ARG UK Project Lead attempted to resolve some of the practical issues.

Prisoner Quotes:

On association we walk round to the pond for an hour. [...] We can sit there on a couple of benches. So we'll sit there on our association.

[On the pond:] It's quite a calming place. In the summer we [...] sit around it.

Relaxation, it makes it more natural. [...] It's nice when the sun comes out as well. there was a big [sign] board and I thought 'okay', but then I looked in there, there's nothing there. But then as I say, they had to reline on it a few months back [...] So hopefully, we'll see things now.

Case Study#4: Men's Category C #2

This prison has a population of over 1190. ARG UK worked with prisoners on J wing, a newly established residential block for 'super enhanced'² prisoners, to create new ponds and wildlife areas, and a new hedgehog rehabilitation unit. ARG UK have also been supporting and advising the gardens team on the restoration of an existing pond behind the psychology block. Volunteers from Lancashire Amphibian and Reptile Group have also been working with the Farm Manager and Head of Industries to renovate wildlife ponds outside of the secure area on the wider prison campus during the period from 2022-24.

The group in J Wing is a mixture of men who have specialized skills and between them have made a great deal of progress, not only within J wing but contributing these assets to other areas of the prison. For the first visit by the ARG UK Project Lead and the researcher (24th August 2023), a small focus group (n=3) was held. For the follow up visit (17th January 2024),

² Enhanced prisoners who exceed standard privileges by abiding to good behaviour principles, but who also receive additional extra privileges.

a larger focus group took part (n=7). This focus group comprised all but one of the men on J Wing who work in the wider prison gardens (in total there are 8 out of the 48 men) and they comprise approximately a third of the overall Gardens Team. The men said that it had been a struggle to recruit more men to join in with the project (and gardening more generally). Confidence was mentioned as a potential issue (the existing Gardens Team are all knowledgeable about growing and horticulture more broadly; one referred to the “*toxic masculinity*” of the prison environment in which people often aren’t willing to help). The wildflower garden in the prison had a mixed reaction, with some staff complaining that that it is a “*mess*”. It was argued by the Gardens Team that there was a shortfall in using greenspace in the general prison and that gardening gave prisoners as a “*sense of purpose*”.

Prisoner Quotes:

At the start of any project, especially like with a pond, everyone had the opportunity to get involved. [...] It was put forward: ‘We’re gonna do this. There’s going to be a lot of digging in and it’s going to be [...] all weathers. We want to try and get it done for a certain time. So everyone had the opportunity, some lads must’ve reflected and thought that’s not for me.

It was too hard work some lads didn’t want to do it, tell you the truth, it was physically too much for them [...] a couple of lads have said, some lads are not used to that.

When we’ve left areas to become wildflower meadows, we’ve actually had complaints from staff and security saying that it was a mess. So, it’s like trying to find that fine line between where we have conservation areas and where did we not.

Doing little projects like it breaks things up, absolutely, adds something a bit different. In summer when everything’s in bloom and everything looks nice it’s really quite a nice area, one of the nicest areas in the prison.

In terms of improving mental health There’s definitely a shortfall of green spaces in the main prison in helping people with mental health. Two of the wings just have tarmacked yards, no green space at all. Apart for the PIPE gardens which is only or the PIPE Units, for the rest of prison there’s no greenspaces and they are the cohorts who need it the most: banged up and restricted regimes.

If you want to improve mental health and wellbeing then you’ve got to give prisoners a sense of purpose, here we’ve got something to look after.

I think it’s important that the staff are invested into the projects. Because that’s what’s helped us a lot here, because the staff want it. They are all for everything that is being done. [...] They have encouraged it and followed it up.

Case Study#5: Women’s Closed #2

This is a prison which included young offenders, with a population of over 480.

At HMP Styal the project team worked within the existing wildlife gardening programme, as the new wildlife pond had already been created as part of the ‘pond in every prison’ programme a year or so previously. The main inputs from the project team with the prisoners were with planning a new pond and reflection/discussion sessions on the work already undertaken.

ARG UK worked with prisoners who were part of the existing Gardens Team over two sessions (24th January 2023 and 30th January 2024). The participants were different for both sessions and the researcher was only present at the second session. As expected from the prison type,

the group was younger than those who participated at Women's Closed #1. Participants said that they hadn't seen any wildlife around the pond (the Gardens Manager said that there are in fact frogs there, but there was a lengthy discussion about other wildlife attracted to the area, including birds and hedgehogs. The prison has a 'Reflection Garden' (set up as part of the Greener on the Outside for Prisons programme), but access is limited due to staffing limitations.

Prisoner Quotes:

I like making it look good. It's our own, isn't it? We're here. You've got to make it look presentable for each other. That matters [for] the people who are here. You've got to make it your own.

It's good for your mental health [...] gets you out more, gets you out in the open air and out in the backfields, being able to do more stuff than you do in kitchens.

Staff Quotes:

They have to be escorted to the ponds, so that's why we're hoping to put a small one here so at least they've got something.

Outside this door here, we're going to put a decking area just there [...] So then if we did have a session [...] there's a pond there. And then we've got the orchard there, we'll have the beehives we've got a lot of shrubs coming in next week, British natives put in that will attract wildlife, birds and things.

Thematic Analysis

Thematic data analysis using inductive coding of the transcriptions of the focus groups conducted in the final visit to each site (n=50) and revealed the following key themes:

Codes	Description
Access	Issues concerning the areas being created by the ARG programme being off limits to certain cohorts so not all prisoners can benefit from the spaces created.
ARG as resource	Staff drawing on the ARG for vital material resources as well as practical knowledge around specific areas (e.g. ponds and wildflower gardens).
Attitudinal change	Potential of working on the programme to improve attitudes and behaviours of the participants (e.g. co-operation, working with prisoners and staff).
Challenges	Issues such as limited numbers of prisoners working on the projects, short working days within the prison regime affecting progress on individual projects.
Confidence building	Building confidence in prisoners to overcome fear of exposing their lack of knowledge to participate and learn from others.
Inclusivity	The ARG programme as a way to involve prisoners with different levels of ability, fitness, skills and knowledge.

Codes	Description
Mental health and wellbeing	The beneficial effects of participation in the participants perception of their own mental health and wellbeing (e.g. being ‘head clearing’ and the temporarily feeling like they aren’t imprisoned).
Motivation	The focus on individual projects with definite goals being a good motivator to continue with the work, despite some frustrations with slow progress.
Ownership	The individual projects giving participants a sense of ownership of the prison space, and a sense of satisfaction and achievement in their work.
Payback	An opportunity to improve the environment of the prison as part of a participants’ reparation for criminal offences.
Reducing reoffending	The potential of working on the ARG programme in reducing reoffending behaviour by developing a healthy routine (e.g. normal workday)
Reflection	A space away from the prison wings in which participants can reflect on their past behaviours and think more positively about the future.
Skills	The programme developing additional skills and transferable learning for prisoners and staff.

Discussion

Despite changing two out of five sites from the original study design (and this missing out on an inner-city category B prison, and a YOI for young men), there were still marked differences between the participants from each case study. This is due not only to site-specific differences between prisons, but how the prisons choose prisoners to work in the gardens and which of these prisoners that ARG UK was granted permission to work with. In the case study sites these were pre-existing Farms & Gardens groups. Partly, this appeared to be a decision made pragmatically – it was potentially easier to get projects up and running with a pre-chosen group of prisoners who already had an interest in working in the gardens.

Both the Men’s Category C prisons were distinctive: the enhanced ‘J Wing’ prisoners in #2 were a more coherent group than the larger gardens team in #1, which has a more rapid prisoner turnover. Originally there was only one women’s prison due to the small number of women in the prison estate overall (just 4% of the prison population). However, there were noticeable differences in the demographics between these sites:

Women’s, Closed #1 had generally older-age groups, with fixed roles (Gardens Team or Clinks Team). Both groups co-operated with each other but there was a noticeable split between them in the focus group which wasn’t evident in the other case study sites. Whilst this was partly due how prisons staff presented the participants to the ARG UK Project Lead and the researcher, it is reasonable to assume the dynamic may have been quite different if we had simply interviewed staff from the Gardens or Clinks Teams. However, access to prisoners is not always straightforward and ARG UK (and the researcher) often had to be adaptive to high or low numbers of prisoners participating as well as other features of specific prison regimes as well as other issues such as whether or not staff joined the focus groups (in some settings this was an important aid to facilitating challenging groups, for others (mainly in lower category prisons) staff were more inclined to step back from the focus group. This does raise an issue of inconsistency between the focus groups (would prisoners be inhibited about

making certain statements in front of staff), highlighting again, the need for researcher and the ARG UK Project Lead to be flexible depending on, and responding to, the context.

Women's, Closed #2 had a much younger cohort, who also partook in the practical ecology session but were noticeably more restless. The Men's High Security prison was the most markedly different of all. It had a largely static group of men on long sentences working on the Gardens. Both prisoners and staff acknowledged it would be beneficial for the prison to have more men working in the Gardens, but the fact that the existing Team are from the VP Unit means that they are kept separate from the wider prison. However, the fact that the Governor has support the Gardens' Manager's request for prisoners to work with him over increased periods of time they would have previously been locked up for suggests a recognition of this value, as well as Security accepting this change in regime for a few select men.

Whilst the Men's High Security prison shared some similarity in prisoners on longer sentences remaining on the team with Men's Category C #2 (just under half this group had been present for the first session), the context of residents living in 'pods' on a new wing, with more access to and responsibility for outside spaces, was markedly different. On reflection, this demonstrated that the choice of site for case study wasn't as critical as the research team had originally considered. The biggest single factor was that where cohorts included the majority of prisoners serving longer-term sentences (generally in higher category prisons), there is a greater chance of a group working coherently on a project which may take several months to complete. However, all the prisons had progressed the projects to varying degrees, and prisons which are accustomed to a fast 'churn' of short-term sentenced prisoners are well-accustomed to working on projects in which there is little continuity between prisoners in the garden team. One way that Gardens Managers add coherency to projects is to take photographs of the work in progress so that new members joining the team can experience a sense of how the project has progressed. The expertise of the ARG UK Project Lead in making the projects happen was also valued.

Despite the prison-specific issues that the programme faced in each case study site, prisoners and staff involved in the creation of the ponds and wildflower areas were enthusiastic and positive about the development of their projects. Overall, prisoners were engaged with the practical ecology sessions. The ARG UK Project Lead observed that practical or routine tasks appeared less anxiety-provoking for some prisoners, as did working in sites where they were able to build rapport with the same prisoners over a number of sessions. There were references made across the projects of the value of focusing on a specific task or project, which offered a sense of control in a situation in which the participants often find themselves disempowered. The focused tasks involved collaborative work between prisoners and staff and fostered a culture of teamwork in the gardens. It enabled prisoners and staff to focus on a shared goal and was also described as being more rewarding than the usual more mundane gardening tasks that needed to be completed. Staff were able to gain knowledge from ARG staff about ponds and wild gardens and prisoners were able to pick up new skills by informal learning when working together with more experienced teammates. The project also enabled prisoners a sense of ownership over the new areas they were creating within the prison, and a sense of satisfaction after projects were completed (not all sites were at this stage at the time of the final data collection). These factors combined to create an experience that was beneficial to the health and wellbeing of prisoners and staff. ARG UK's work is an example of joined up working within UK prisons connects well with other MoJ-funded projects (e.g. Orchard in Every Prison, Pond in Every Prison) and wider prison programmes such as Greener on the Outside for Prisons. Although ARG UK's focus on specific elements (ponds and wildflower gardens) was useful in terms of offering a tangible and comprehensible output for prisoners, this work becomes even more valuable if understood as contributing to a wider holistic agenda of sustainable organizational change within prisons, which will continue beyond the duration of this particular discreet programme.

Limitations

ARG UK had to make the decision to change two of the prison sites for the project due to the challenges they were facing at the time in these establishments, including population pressures, staff retention/recruitment and population re-roll, leading to concerns as to whether it would be possible to complete the project work and evaluation within the period of the Grant.

Upon reflection, the original study design encountered several problems which only became apparent when the project was running. The most major of these was that participant 'churn', which meant that quantitative measurement did not generate sufficient numbers of complete data sets to allow for a robust analysis of the data collected.

The original intention was to monitor the participants using a descriptive analysis of Likert scale responses within the CNS and SWEMWBS with SPSS v. 24. However, this didn't work out in practice for a number of reasons. The main issue being that because of the need to gain sign off from the Governor, site services and security for any significant external works, including digging ponds, the prisons took longer to operationalise the proposed projects. A second issue was fitting the additional project work alongside existing gardens' team commitments notably mowing, fruit and vegetable production and horticulture. Thirdly there were short-staffing issues which hindered progress in all the sites. This meant that for four of the five case study sites, by the time the second round of data collection could be organised, the prisoner turnover was so great that only one of the initial participants remained across all of the case study sites.

A second issue was that for the one site in which most of the members of the original group were present, the Gardens Manager couldn't locate the register and so we were unable to match the initial baseline monitoring to the follow-up data. However, this small number [n=7] would not have been large enough to produce a significant descriptive analysis of qualitative scales. Monitoring of this kind could be improved by training a member of prison staff to collect the information on behalf of research or ARG UK. However, the ARG UK Project Lead and the research team were wary of adding to their workload of HMPPS staff, and it was felt that having an independent assessor would lead to better standardisation of the data collection. Therefore, the programme was designed so that the research team could come collect both the initial and the follow up data. However, the premise of this was based on individual projects developing over the course of just three months. In reality, all of the projects took much longer than this, and this is an important learning outcome for informing future prison-based study designs.

Recommendations

An alternative method of evaluation could be to follow individual prisoner's journeys using individual interviewing techniques (all interviews for this evaluation were in the form of focus groups), or perhaps a combination of the two methods. This would reduce the number of participants but potentially give a more detailed and nuanced individual journey which enables a more in-depth exploration of issues (which may remain hidden in a focus group context journey).

ARG UK worked with Gardens Teams, primarily because this is what the individual prisons preferred when negotiating with the team to set up the projects. However, given the findings of evaluations of other congruent interventions in prison (e.g. Greener on the Outside for Prisons) it would arguably be of even greater benefit to engage non-gardens prisoners, who may find a greater increase in their health and wellbeing from participation than those already

benefiting by working in the gardens thus, contributing to greater opportunity for health equity. This point was raised by the prisoner group at Men's Category C #2, who suggested that those who would benefit the most from gardens' projects were the ones least likely to be involved. However, bringing additional prisoners into a new work area i.e. gardens, for short-term or one-off projects remains a logistical challenge relating to the additional resources required for security clearances and staff supervision that are required in a secure prison setting, that goes beyond the scope of this evaluation. A further issue is the culture of the gardens team, where HMPPS staff have created carefully regulated systems to safely manage situations where prisoners have access to tools and can enter parts of the prison that are normally off limits. The prisoners within the gardens team learn these protocols and are able to follow the procedures quickly and efficiently in order to maximise the short time they have for doing tasks. However, bringing in those less used to the system could lead to delays and frustrations. At the Men's Category C #1 prison, staff highlighted the importance of not allowing the prisoners to develop routines or be forewarned of where they would be working in order to reduce the potential for peer pressure (from outside of the gardens team) to engage in non-approved activities. This situation was particularly highlighted at the Men's Category B prison: during a coffee break in the initial practical ecology session, some members of the 18-24 age focus group encountered another cohort leading to a violent confrontation and the session needing to be abandoned. The learning from this was that we would have been better to run the focus group on the wing, in a secure part of the gardens area, or keep the entire cohort in the classroom.

This is a fundamental issue to address, but one where there is increasing precedent in the GOOP programme. In order to bring additional prisoners, with other needs, or from outside of the culture of the gardens team into the gardens area, careful thought should be given to security clearances, supervision, location and type of activity. One way around this is for these additional prisoners to conduct more defined activities on their wing, for example by creating small wing gardens, bird feeding stations, supervised by wing staff. In many cases the gardens teams were happy to offer advice and support with this enterprise and could undertake some of the preparation.

A second area of expansion for ARG UK is to roll this programme out in more challenging prisons, including the older-style more urban prisons in which green space is extremely limited. A pilot study with a small cohort in the gardens team at HMP Brixton has already demonstrated the potential for this approach. The group were able to transform the sterile area between the fence and the outer wall, by taking up the concrete (using hand tools), and creating a system of raised beds, raised ponds and seating using upcycled materials gathered from around the prison. One of the prisoners had upcycled discarded gardening boots to create colourful wall planters, and staff and prisoners commented on the psychological lift of seeing flowers around the prison. The prisoners were extremely proud of the difference they had created and one prisoner had kept a photo-scrapbook showing each stage of the process.

Further Dissemination

The HSSU will write at least one article based on the evaluation for peer-reviewed publication in an appropriate peer-reviewed journal, enabling the work to be disseminated to a wider national and international audience.

The findings will be presented at conferences (including the forthcoming IUHPE *7th International Conference on Salutogenesis* in Lodz, Poland (June 2024) and used for teaching purposes at the University of Central Lancashire.

Research Team

Principle Investigator: Dr Michelle Baybutt is Professor of Health and Justice and Director and Prisons Programme Lead in the Healthy and Sustainable Settings Unit (HSSU) at the University of Central Lancashire. Michelle has been the North West regional strategic and programme lead on the development of prisons as a setting for health, alongside co-ordinating the North West Regional Health Promoting Prisons Partnership Network, for nearly twenty years. Michelle has extensive health promotion and public health expertise in working with people in prisons and those with experience of prison in the wider community, and underserved, disadvantaged vulnerable groups; has worked on issues relating to young people, prisoners, and wider justice-related strategic partnerships; and is committed to improving the health and opportunities of people who are socially excluded or marginalised, and to addressing health inequalities and social injustice.

Lead Researcher for Prisons Programmes: Dr Alan Farrier is a Research Fellow in the Healthy and Sustainable Settings Unit, based at the University of Central Lancashire. He has 15 years' experience of carrying out evaluations and has worked in a prison setting previously on several projects, including an evaluation of the Greener on the Outside of Prisons Programme and an evaluation of sustainable food initiatives in prison. He has used a range of methods in prison-based evaluation, including one-to-one interviews, focus groups, surveys and participant observation and has interviewed staff as well as people in prison. He has also presented papers in a conference hosted inside prison and co-hosted prison-based workshops with staff and key stakeholders.

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