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## **Health Education (2024)**

Farrier, Alan and Baybutt, Michelle

### **Therapeutic gardening in English prisons post-pandemic: implications for health and wellbeing**

#### **Abstract**

##### **Purpose**

Greener on the Outside for Prisons (GOOP) is a therapeutic horticulture programme targeting the high levels of complex health and social care needs in prisons in England. The COVID-19 pandemic and resulting lockdowns led to unprecedented disruption in prisons in England. This paper examines the experiences of prisoners both during and post-lockdowns in four prisons, to understand the effects of participation in GOOP on health and wellbeing after the disruption of restrictions, and identify implications for developing this programme further.

##### **Design/methodology/approach**

The paper is based on original qualitative data gathered from in-depth narrative-based interviews and focus groups with prisoners and staff in four English prisons. Audio data was transcribed and subject to a thematic analysis, drawing from a realist-informed lens.

##### **Findings**

Thematic analysis revealed five key themes: reimagining the GOOP context; increasing empathy between participants; building sense of coherence; reconnecting with nature and a joined-up connection with provider services. The main arguments centre on horticulture in prisons remaining under-utilised as a means of promoting good health and wellbeing, although there is enthusiasm from staff to provide green spaces for the most vulnerable prisoners and develop a range of mechanisms to connect people in prison with nature.

## **Originality**

This paper focuses on new knowledge arising from an unprecedented situation in English prisons, from key stakeholders on the frontline of gardens activities. Accounts demonstrate the extent of the health and wellbeing benefits of participation in such activities in this challenging environment, which has implications for practice for prisons more widely.

**Five Keywords:** Prisons, health and wellbeing, settings approach, horticulture, pandemic

## **Introduction**

Globally there are estimated to be 11 million people in prisons with approx. 87,560 prisoners in England and Wales (MoJ, 2023). Many are marginalised, experiencing high levels of social disadvantage coupled with disproportionately high incidences of ill health (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) 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 (gov.uk, 2022) with a changing demography, creating new pressures and demands (Woodall and Baybutt, 2022). 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, social care implications for women's prisons are distinct from men's prisons with, for example, higher incidences of self-harm (HMIP, 2021).

The COVID-19 pandemic imposed global lockdowns and social distancing measures in the community between March 2020 and December 2021 (Institute for Government, 2022) with prisons viewed as a setting particularly vulnerable to infection arguably related to multi-dimensional issues

of overcrowding and poor ventilation (Montoya-Barthelemy *et al.*, 2020) – acknowledging the propensity for these to accelerate poor mental health and disease (Woodall and Baybutt, 2022) particularly, high levels of chronic respiratory illness among prisoners (Suhomlinova *et al.*, 2022). Prisons have been described as a further social determinant of health for a population group who are already disproportionately affected by deprivation prior to being imprisoned (De Viggiani, 2006). The global initiative of Sustainable Development Goals [SDGs] (United Nations, n.d.) aiming to ensure health and justice for all acknowledges prisons with the emphasis is on basic human rights such as sanitation and access to healthcare. However, it has been argued that improving prisoner health can contribute to achieving 15 of the 17 SDGs as prisoners are often the most deprived members of populations, therefore prisons need to be brought to the forefront of the SDGs (Ismail *et al.*, 2021).

Since the beginning of the pandemic, 160 prisoners have died in custody with cause of death either suspected or confirmed to be caused by COVID-19 (gov.uk, 2023), a death rate which is 3.3 times higher than the same age and gender demographic in the general population (Braithwaite *et al.* 2021). Despite these high levels, the pandemic lockdown regime in prisons is argued to have saved lives through social distancing and other measures (Suhomlinova *et al.*, 2022), but has led to concerns regarding long-term effects on prisoners' health and wellbeing (Howard League for Penal Reform, 2020), particularly mental health. At a time when the wider community clamoured to engage with the outdoors with unprecedented interest in nature, pandemic restrictions in prisons impacted on 'meaningful' activities including participation in prison-based gardening, in what has been described as a "lockdown under lockdown" (Schliehe *et al.*, 2022:881). Perceived by prisoners as an additional form of punishment (Maycock, 2022), 85% of prisoners reported 23-hour lockdowns during the pandemic with data pre- and post-pandemic revealing marked increases in scoring around severe depression and severe anxiety (User Voice, 2022). In England and Wales, local restrictions on prisons - whereby small groups of prisoners formed 'bubbles' as in the community with families - (implemented when, for example, and prisoner tested positive for COVID-19) were

continued until October 2022, a considerable length of time after lockdowns and restrictions had been lifted in the wider community (Suhomlinova *et al.*, 2022). During this time, prisoners were locked in their cells for up to 23 hours a day for up to 100 days, with resulting negative effects on prisoner mental and physical health (Wainwright and Gipson, 2020; Gipson and Wainwright, 2020).

The therapeutic impacts of gardening in prison are well-documented (Moran, 2022; DelSesto, 2022), offering benefits such as self-perceived improvements in aspects of mental health and wellbeing such as confidence, and sociability (Baybutt, *et al.*, 2019; Farrier *et al.*, 2019), decreased depression and increased self-esteem (Lee *et al.*, 2021), knowledge and vocational skills (Ascencio, 2018).

Research focused on horticulture 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 (Stevens, Toews, & Wagenfeld, 2018; Toews, Wagenfeld, & Stevens, 2018; van der Linden, 2015). Prison horticulture linked with environmental sustainability programs are gaining increased attention (Sustainability in Prisons Project, 2019) although prison gardens (historically) are generally not designed to impact specifically on therapeutic rehabilitative or behavioural outcomes.

As restrictions were lifted, prisons began resuming GOOP activities although with fewer prisoners and more cautiously than prior to the pandemic. During this period of transition, there was a great deal of change in a brief period of time and, arguably many elements of good working practice prior to the pandemic have not fully resumed (Criminal Justice Joint Inspection, 2022). However, as before the pandemic, prisons remain under-utilised as places to improve and promote opportunities for health and wellbeing, tending to focus on physical as opposed to mental dimensions (Woodall *et al.*, 2014). Yet prisons are a prime opportunity to intervene and promote health by accessing people who would otherwise be hard to engage, acknowledging that the majority of people in prison return to the community, many moving repeatedly between both settings (Kinner and Young, 2018) and thereby serving to emphasise the importance of prison health for broader society, public health and

tackling health inequalities. An analysis of health and wellbeing policy suggested that much more could be done within UK prisons to achieve better outcomes for prisoners (Woodall, 2016) and that prison policy has generally focused on managing the spread of disease in prison (Woodhall and Freeman, 2020), rather than focus on 'upstream' health and wellbeing interventions to harness a holistic conceptualisation of health that moves beyond disease and ill-health to incorporate a salutogenic dimension (Antonovsky, 1979). While this may be more challenging and take longer to implement arguably it would alleviate some of the problems that these multiple health and wellbeing issues generate (Woodall and Freeman, 2020).

### **Greener on the Outside for Prisons (GOOP): A health and justice intervention**

Greener on the Outside for Prisons (GOOP) is a long-standing asset-based health and justice intervention that focuses on nature-based activities and a broad programme of therapeutic horticulture in prison settings. Starting in all Public Sector prisons in the North West of England in 2008, it has recently been extended to five prisons in the South West (from 2021) and six prisons in the North East and Yorkshire regions (from 2022).

It utilises a 'settings-based' approach to health promotion (Dooris, 1998) which reflects an ecological model that takes account of the dynamic, complex interactions between personal, organisational and wider environmental factors that influence health and is underpinned by the principles of equity, participation, empowerment, sustainability and working in partnership (Dooris, 2009). GOOP specifically engages the 'whole-prison' (Baybutt and Chemlal, 2016) to embed sustainable change within the systems and processes of the prison by using the existing resources within it. It is therefore tailored to the needs of each prison, taking into account culture, resources, environment and specific population and individual health and social care need. For example, irrespective of how much (or little) 'green' space is available or indeed whether the prison is rural or inner city, the focus is to create connections to nature utilising the external and internal resources of the particular prison and taking account of the security restrictions when developing activities. With this, there

may be specific considerations relating to an ageing population, young prisoners and women in prison. Moving beyond traditional prison 'farms and gardens' work which serves to provide meaningful activity and produce to prisons for 'enhanced' (most trusted) prisoners, GOOP works with the prison gardens team, residential units and the health (and/or recovery) provider to identify prisoners who may benefit because their (ill) health and behaviour is more challenging and historically considered more risky by prison security. For example, focusing 'upstream' on reducing violence and aggression, improving aspects of mental (ill) health or weight management – recognising that there can be unique challenges to engaging people with their health and that what determines health in this setting can be far removed from that in the wider community. Importantly, and in recognition of the need for prisoners to return to the community more skilled and able to work, GOOP engages the prison education provider and other learning partners to embed relevant qualifications for the cohorts needs. Taking a whole prison approach ensures that the benefits to the wider system are captured. For example, reducing violence and aggression with prisoners has a positive impact on the stability of the prison and the physical and mental wellbeing of staff. People with high levels of poor mental health can struggle to engage with the prison regime, The GOOP programme facilitates this intermediate step to build confidence all round that those who struggle the most can eventually engage with the wider regime. GOOP is often a first step for someone before being able to go to prison education (or education comes to them via GOOP) and/or participants begin engaging with prison workshops. Therefore, the overall objective of GOOP is to improve joined-up working within prisons to enable prisoners (specifically prisoners who are experiencing more complex, challenging health and social care issues) to participate in activities that connect them with nature including therapeutic horticulture and to improve prison environments for the benefit of both prisoner and staff wellbeing.

As part of a current two-year His Majesties Prisons and Probation (HMPPS) - funded evaluation into GOOP (2022-2024), in order to:

- explore prisoner experiences of participation in GOOP both during and post the COVID-19 pandemic, in order to better understand the impacts on health and wellbeing after the disruption of the lockdowns
- determine what the implications pandemic-related restrictions to activities are for the longer-term health and wellbeing of prisoners and staff
- find new ways of working that improve systems and processes delivery of GOOP particularly for those with high levels of complex, challenging need

Previous evaluations (2008-2012; 2014-2015) have focused on the process of developing GOOP and the impact on participants physical activity, healthy eating and mental wellbeing (Authors; Authors) and findings transferred to the development of activities in more recent prison engagement.

Previous evaluations (2008-2012; 2014-2015) have focused on the process of developing GOOP and the impact on participants physical activity, healthy eating and mental wellbeing (Authors; Authors) and findings transferred to the development of activities in more recent prison engagement.

## **Research Methodology**

### **Participants**

The data presented in this evaluation uses qualitative methods: focus groups and interviews with prisoners taking part in GOOP and, separately, with key prison staff. The rationale for this approach is that we wanted to capture a diverse range of in-depth perspectives from those engaged in the referral, management and reporting of GOOP participants to those participating. Focus groups/interviews were conducted with a range of participants, chosen using purposive sampling. Staff and prisoner focus groups were conducted separately to enable both sets of participants to talk more openly about their experience, in confidence. Interview schedules were semi-structured and narrative-focused, inviting participants to describe their experiences of participating in the GOOP programme in their prison.



Audio recordings of focus groups and interviews were transcribed verbatim by a member of the research team. Data is reported from three male prison sites in England (local remand, Category C (resettlement), Category D (open)) and one women's prison involving 25 prisoners and 8 staff (see Table 1).

Prison	Date	Type	Number
A (rural prison, acres of green space)	September 2022	Prisoner Staff	Focus group [n=9] Focus group [n=2]
B (rural prison, acres of green space)	October 2022	Prisoner Staff	Focus group [n=8] Focus group [n=2]
C (urban prison, small green space)	October 2022	Prisoner Staff	Focus group [n=5] Focus group [n=2]
D (rural prison, large green space)	November 2022	Prisoner Staff	Focus group [n=3] Interviews [n=2]
<b>Total</b>			Prisoner [n=25] Staff [n=8]

### Ethical Considerations and Approvals

People in prison are considered vulnerable due to potential constraints on their voluntariness, and whether or not they are able to make informed decisions about participation in the environment they are in (Rouf, 2004). This is coupled with high levels of poor literacy in prison, with 57% of adult prisoners having literacy levels below those expected of an 11-year old (HMIP, 2023).

As is required for undertaking prisons research and evaluation in England and Wales, HMPPS National Research Committee (Ref: 2021-179) and University Ethical Committee (HEALTH 0159) approvals were gained before fieldwork commenced. GOOP participants were invited to take part in focus groups / interviews up to two weeks before they took place, by the appointed GOOP 'lead' at each prison (e.g. Senior Manager or practitioner), who supplied participants with University-prepared information sheets and consent forms. GOOP participants were informed by this staff member that participation in the evaluation was entirely voluntary and would not affect their participation in the programme in any way. Focus groups and interviews were held on site in each of the prisons. As participation was voluntary, the focus groups consisted of prisoners who were

partaking in GOOP activities and who also consented to take part in the focus groups on the particular days that they were arranged in the presence of the researchers prior to the focus groups and interviews taking place. At this stage, participants were reminded that they were voluntary and that should any participants become distressed during the focus groups, we were able to refer them to the GOOP lead or a member of the healthcare team at the prison. A digital recorder approved by each prison in advance, was used to record focus group discussions and interviews. Audio was transferred to a secure university servers as soon as possible post-recording and provided transcripts for analysis. Researchers were DBS cleared and fully HMPS cleared ('vetted') to undertake research in prisons.

### Data Analysis

Audio recordings were transcribed verbatim by a member of the research team. Transcripts were subject to a line-by-line two-stage thematic analysis (Braun & Clarke, 2021). One team member's initial coding was then refined by a secondary analysis from another member of the research team. The evaluation used a realist-informed lens, with the rationale being that the programme itself is informed by the notion of "what works, for whom, in what circumstances and why?" (Pawson and Tilley, 1997), understanding that all prisons are different (due to population, size, and the physical, social and cultural environment) and that the culture and underlying processes in the prison need to be fully understood in order to maximise the potential of the GOOP programme. In the analysis, a number of CMOCs (context-mechanism-outcome configurations) related to GOOP were drawn from interview and focus group data (De Brún and McAuliffe, 2020). These feature the specific contexts of implementation of the GOOP programme (C), the psychosocial mechanisms (M) that trigger intervention outcomes from the programme and the actual outcomes (O) (*ibid.*) Thematic analysis was framed around this realist-informed lens in a two-stage process, whereby initial coding from one member of the research team was refined by another.

### Findings

Five distinct but interrelated CMOCs emerged during data analysis. In this section using exemplar quotes, these themes are discussed to explain the experiences and observations of prisoners and staff before returning to them in the discussion section using a realist-informed evaluation lens (Pawson and Tilley, 1997). Anonymised prisoner quotes are distinguished by number and category of prison (A-D). Staff are distinguished by role and category of prison.

## **1) Reimagining GOOP**

Context:

The COVID-19 pandemic led to the vast majority GOOP participants at all sites having GOOP and related activities suspended. Prisoners, some of whom had been used to participating for half or full days on the programme, were confined to their rooms, many on their own for extended periods as prisons were rigorous in following strict social distancing rules:

“It affected everything [...] no one was working [...] you were behind your door for 23 hours a day. You got out for 15 minutes a day at the worst time. You got fed at the door, you weren’t even able to queue for your dinner.” [Prison B, #2].

“Everybody was stressed out and kicking off because you were never out of your pad.”  
[Prison B, #4]

Gardens staff involved in the implementation of the GOOP programme also experienced negative impacts, sometimes having to fundamentally change their role in the prison from one focused on gardens to taking on multiple broader roles within the organisation in order to meet with the requirements of social distancing and isolation:

“I’ve got PTSD [...] if I think back to that time, it was horrible [...] It was awful [...] we ended up doing the work of the prisoners [...] six days a week. And then right at the end when you’re actually knackered we had to go make the snack packs [...] pull in a truck full of water

[...] It was horrendous [...] If that happened again, there's no way we'd be doing what we did

[...] I could cry now [thinking about it]." (Prison B, Horticultural Instructor)

All prisons in the evaluation experienced some degree of reduction in activities, so all faced the task of reintroducing GOOP activities when lockdowns ended.

Mechanism:

Some sites (A, B and D) had more flexibility due to the extent of external grounds, although this was contingent on staffing levels. In prison sites where horticultural activity was permitted to continue, limits (determined by social distancing and staff capacity) were placed on the number of prisoners allowed to work outside in certain spaces (e.g. polytunnels, classrooms) at any one time which drastically reduced the number of prisoners able to benefit from GOOP.

Because of variation between sites (not only in terms of category of prison but size of prison population, size of outdoor/green space, staffing levels, etc.) the experience was inevitably different for prisoners and staff in different sites. Post-lockdown, some prisons were struggling to resume GOOP activities whilst others were forging ahead. This has been exacerbated in some instances with a high degree of staff turnover and new staff.

Outcome:

However, the halting and resumption of activities has, in some prisons, enabled staff to rethink about how to approach GOOP. Prisons that have made the most progress post-pandemic were the ones that saw opportunities to come from an apparently negative situation. For GOOP, new staff have brought fresh perspectives which has potential for positive change in prison culture and the potential for GOOP to more effectively benefit the prison as a whole, and to explore new innovation.

"In a weird way, COVID was like a blank refresh [...] So it was time to have a look at what was good, what was bad and what needed to change. And that's what happened really fast [...] it

helped me try and make an action plan [...] it was easier to start from fresh rather than stop and start, if that makes sense. The momentum was gone. So, we just started again, made an action plan for each area, looked at most important areas were to restart and improve the staff as well as business. (Prison B, Industries Manager)

## **2) Increasing empathy between prisoners**

Context:

Once lockdown restrictions were eased, and GOOP recommenced, prisoners went from being largely isolated to once again working in teams in the gardens.

Mechanism:

Requires prisons overcome the 'convenience' of prisoners being locked up, and to understand that reintroducing prisoners to the GOOP programme was beneficial, whilst also acknowledging that the ratio of staff to prisoner is less than prior to the pandemic.

Outcome:

The reintroduction of GOOP activities appears to have increased awareness of and empathy towards other prisoners, and in some cases, staff. For prisoners, these opportunities also led to feelings of connectivity with others:

"We never met before [...] we've seen them [other prisoners] but we never discussed things with them. And all of a sudden: oh, I know him. Well I don't know him, but I know I've met him. It gives you a good [feeling]." (Prison A, #6)

The understanding that therapeutic horticulture is a collective activity which fosters a degree of camaraderie amongst prisoners and staff was mentioned frequently in discussions with prisoners and staff:

“I think the big thing in [the Gardens] is [the prisoners] looking out for each other [...]

Noticing when a colleague isn't feeling great (or is feeling great!) or has something good to say and not putting them down. I think once you've got that respect, as a team, and you all enjoy working with each other, then everything else is easy [...] So I think once the respect and the bond is there between the whole team then it makes life easy. And it's their workspace, it gives them ownership of this”. (Prison D, Horticultural Instructor)

The idea of GOOP being a caring space was mentioned by one prisoner (living in an inner-city local prison with little green space) who explained how the programme had positively affected their mental health:

“It's just that feeling of like normality, and I'm accepted sort of thing, does that make sense? [...] there's not that much stress and focus on making people do things in here: At your own pace, in your own time and when you're comfortable to do something. Knowing that is really helpful, I'm not forced to do anything I don't want to do, I wouldn't come here if I was [...] that makes a big difference. Everyone gets that help, I really appreciate that.” (Prison C, #3)

### **3) Building a sense of coherence**

Context:

The up to 23 hours per day 'in-cell' lockdown had eroded a sense of purpose for many prisoners, unable to engage in even basic activities around the prison which could be defined as useful. The GOOP programme was often mentioned as giving the participants a sense of purpose, where often thinking about being incarcerated was seen as undesirable or unbearable:

“It keeps you motivated, it keeps your mind set on something.” (Prison A, #1)

Coupled with this, there was a clear sense of ownership and pride in the upkeep of the prison grounds which had become dilapidated during lockdowns:

“The place would be overgrown and looking like shit if we didn’t do [the gardening].” (Prison B, #5)

#### Mechanism:

GOOP goes beyond the traditional sense of gardening in prison to incorporate more therapeutic components – in that it is not just about purposeful activity (tidying the grounds and giving prisoners something to occupy their time), it develops their health and wellbeing by building teams and giving additional responsibilities to participants.

#### Outcome:

In one prison, activities were described as confidence building for ‘Red Band’ (most trusted [by security]) prisoners who have a mentoring role and an enhanced set of responsibilities within the gardens. This has the added function of enabling the staff to manage increasing workloads:

“I have probably between 10 and 16 [prisoners] with varying degrees of ability. I've got two Red Bands because I don't have a member of staff...They're my backbone...” (Prison D, Horticultural Instructor)

Part of feeling useful is giving the prisoners the opportunities to share skills with others. This process of informal learning both builds confidence for those sharing skills and increases knowledge of other members of the group, which ultimately may be of benefit for release:

“It'd be nice to give them the opportunity to go for a job and [when] they leave here and they can take [the learning] and do well at an interview. So you'd hope that what we do sort of, you know, prepares them a little bit for that...sometimes they are surprised at what they are good at and what they know, and they don't realise they know.” (Prison D, Horticultural Instructor)

Whilst much discussion around feeling tired has negative connotations in relation to mental health and wellbeing, an element of horticultural work more broadly discussed by prisoners as a positive, is

associating feeling tired with satisfaction gained after strenuous physical activity which wasn't possible for most prisoners during the pandemic, and the benefits this has in terms of sleeping well:

"I'm getting up [...] coming to work at eight o'clock and I'm given a fair day's work in the gardens and know [that's] keeping me active [...] it's keeping me moving, keeping me flexible...for me, at my age. That is a good thing [...] I'll go back to my cell and I'll feel tired. To me, that's just like going to a good session in the gym, isn't it? [...] you feel like you've achieved something throughout the day." (Prison A, #2)

"If you've had a hard day at work you can just get back to your pad and sleep. I feel good in myself." (Prison B, #1)

#### **4) Reconnecting with nature**

Context:

Removal of lockdown restrictions has increased the amount of time prisoners can again participate in GOOP in outdoor / green spaces within the prisons.

Mechanism:

Prisoners involved in GOOP understand that participating in therapeutic horticulture activities goes beyond the instrumental to the prison and enables participants to experience nature. For example, one of the prisons ran a project in which older prisoners with mobility issues were able to observe nature without being directly involved in physical aspects of horticulture.

Outcome:

Prisoners were given as much latitude as possible in focus groups to describe how they feel when taking part in GOOP activities. One prisoner quote illustrates benefits of connection to nature through the use of their senses, and how rapidly this can have a beneficial effect:



"I just chill out here...if I'm stressing, getting anxious, whatever is going on in your head, you can escape...My default escape is I can just come out myself [...] And I'm not listening to somebody shouting or playing the music on the wing. I'm not listening to the sound of the pool balls clanging together or somebody talking rubbish three foot from my cell door, all I can hear is nature: the grass rustling, the grasshoppers making the noise, the birds tweeting, natural, normal sounds of life. And that is so healing, to spend 20 minutes, half an hour, just sat down there." (Prison A, #5)

Some mental health and wellbeing benefits described by participants were often cross-cutting over many themes listed above. For example, in this excerpt a prisoner discusses how participation has affected their mental health:

"I've had depression for a very long time. I find being out and working with plants digging gardens over or coming up with ideas for the gardens, which plants to put in, where which plans are going to complement other plants. It keeps your mind occupied, it keeps your mind active. It helps control the depression. Now you can find yourself, if you sat in the cell, you can you just go down and the depression can take over. But when you get up in the morning and you know you're going out...I don't mind the weather. I don't care. I don't care if it's absolutely lashing it down or snow [...] I'll do it." (Prison A, #1)

The notion that participation in GOOP was relaxing or had a positive effect on participants' mood was mentioned frequently:

"Going back to your cell, you don't notice it at the time, but [after GOOP work] you go back to the wing in a better mood. It's a feeling of freedom, a feeling of being yourself instead of just depressed." (Prison B, #5)

"I needed to connect with [...] life again [...] and reality and things that are happening around me and stop focusing on just one problem. And that's what getting back to sort of basics

looking at nature taking the time to look did for me...made my escape place and now if I'm having a really bad day I just disappear, [...] go and see what I can find." (Prison A, #8)

Evidence to suggested that prisoners without prior experience or interest found benefits from participation:

"I don't really have the slightest bit of interest in horticulture, never have, still struggle with it. But I find positives out of it that have helped me. And I have found that during the weekend, I end up going and sitting in nature, more than I've ever done before. So ...that is hugely beneficial to...people like myself." (Prison A, #1)

#### **5) A joined-up approach with provider services**

Context: Restarting of the GOOP programme has provided the opportunity for a more formalised 'referral pathway' between the established gardens teams ,healthcare, mental health and recovery providers, in order to encourage opportunities for participation for individuals who may be most in need of a therapeutic intervention.

One participant discussed how important it was that healthcare staff considered how GOOP might improve the wellbeing of individual participants, noting this requires questions to be asked around previous experience in a related field or interest in working in the gardens:

"I think it was sort of December time, my mental health got really bad. I had to go back on my tablets, I couldn't go to work. I was working inside at this point. And for about four or five months, I couldn't get out of bed [...] I haven't had it that bad for a long time. And the only thing that helped me was coming to gardens, it sounds like a bit of a kiss-arse or a cliché, but I know that that helps me [...] But if [healthcare staff] didn't have that information to start with, then you might not know that [...] being outside actually helps." (Prison A, #3)

Mechanism:

This joined-up approach requires regular, meaningful communication between different elements of the system and some prisons being more inclusive with allowing prisoners to access greenspaces and nature within prisons than previously. This inclusivity reflects the aims of GOOP to target prisoners with challenging complex mental health needs, despite adding greater elements of risk to their role:

We don't treat them any differently [...] they just join the team [...] It's a controlled risk and we are pretty aware of it. (Prison C, Horticultural Instructor)

"Everything is a risk. It's a matter of managing the risk." (Prison C, Industries Manager)

Outcomes:

Prisoners and staff argue that participation in GOOP can lead to increased health and wellbeing in the prison population and a decrease in adverse mental health issues. Participating in GOOP activities being the main (or indeed only) activity that helped mental wellbeing was borne out by another prisoner, who found traditional approaches were not helping:

"I lost me mam, couldn't go to her funeral, found myself in front of the mental health team and I was under them for two years. And I got more healing in one session [...] than I did with 20 sessions sat in front of a counsellor trying to tell me *everything's gonna be alright and everything's fine*." (Prison A, #8)

## Discussion

In analysing themes emerging from the data, a realist-informed evaluation lens has been used (Pawson & Tilley, 1997). Thematic findings are grouped under five related sets of context, mechanism and outcome (CMOCs). On arrival of the COVID-19 pandemic arrived, prisoners were considered especially vulnerable due to the nature of the space in which they inhabit. Government-imposed lockdown and enforced social distancing included prisons. In terms of GOOP activities in

prisons, the pandemic had a significant, immediate effect. In some prisons this halting of activities allowed for a rethink about how to approach the GOOP programme. A high degree of staff turnover, with more than a quarter of staff leaving after less than a year in service (Prison Reform Trust, 2023) posed obvious operational problems. From the start of the pandemic prisons in England and Wales have received an influx of new staff. This has brought mixed responses in that many new staff only knew prisons when they were locked down and prisoners weren't mixing in the usual ways. However with the combination of coming through the pandemic and the newly appointed prison staff, there were many examples of innovative ideas they wished to implement, which provided the stimulus for GOOP to be reimagined and to work more effectively with the whole-system, providing reason to optimistic about systemic changes in the longer term.

Social distancing rules meant that prisoners became increasingly isolated. Once lockdown restrictions were eased, and the GOOP programme recommenced, prisoners began interacting together again. This appears to have increased awareness of and empathy towards other prisoners and staff. Although the pandemic was often portrayed in the media as having a veneer of solidarity (Nolan, 2021), (a popular slogan being "we are all in this together"), the disproportionate effects of social inequality on how the pandemic affected people differently soon became apparent. In the wider (non-prison) community this was in the lower socio-economic groups (*ibid.*), but in prisons the impacts on health and wellbeing due to social isolation and lack of exercise and access to green space were even greater. This adversity appears to have created a sense of bonding with some prisoners and the subsequent relaxing of restrictions has resulted in an increased appreciation of and empathy towards fellow prisoners and staff.

Additional site-based restrictions based on COVID-19 outbreaks within individual prisons alongside 23 hours per day 'in-cell' lockdowns had eroded a sense of purpose for many prisoners, unable to engage in even basic prison activities which could be defined as useful. The re-emergence of the GOOP Programme enabled prisoners to return to activities which provided a sense of coherence

beyond the traditionally understood concept of 'purposeful activity' in prison. In the name of COVID-19 safety, traditional prisoner roles had been undertaken by staff, eroding the sense of coherence (Antonovsky, 1990) prisoners might have had previously, defined as an "adaptive dispositional orientation...that enables coping with adverse experience" (Hammond and Niedermann, 2010:79). This deprived prisoners (and in some cases, staff) of the psychological mechanisms needed to protect one's own health and wellbeing during such an unprecedented pandemic.

Rigid lockdown rules had reduced the access of prisoners to green spaces within the prison, with a resulting negative impact on mental health and wellbeing. Post-pandemic, the removal of lockdown restrictions has increased the amount of time prisoners can again work on GOOP activities within the prisons and have access to nature and green spaces, with a resulting positive impact on the health and wellbeing of the prisoners and staff. Similar positive outcomes have already been observed in prisoners (Moran and Turner, 2019) and staff (Moran *et al.*, 2022).

Prisoners with mental health issues may benefit from therapeutic horticulture, but they are not necessarily being given the opportunity within prison to benefit from this intervention. A more joined-up approach is needed between healthcare, mental health and recovery providers and the gardens team, in order to flag potential participants (with the highest level of complex health need) and refer them to nature-based interventions such as GOOP, which may provide opportunities for increased health and wellbeing in the prison population and a decrease in adverse mental health issues. Therapeutic gardening has already been trialled as a form of social prescribing in community-based settings (Garside *et al.*, 2020). One aspect of the programme being trialled in some prisons is a 'GOOP on prescription' social prescribing model, to direct some prisoners with identified mental health and more challenging, complex needs to participate in therapeutic gardening (GOOP) activities when otherwise they would not have had the opportunity (an example of this is demonstrated in participant quotes in CMO#2). If this model was rolled out more widely across the prison estate, then the findings of this aspect of evaluation would suggest that the benefits that

could bring to the prisons outweighs the risk involved in encouraging prisons to engage more challenging prisoners with GOOP.

In summary, the analysis has highlighted that post-COVID-19 lockdowns, prisons are beginning to re-engage with GOOP with vigour and enthusiasm, but some are facing challenges with high turnovers of staff, and have to prioritise safety has meant that in some situations the gardens/GOOP have not been accessible to prisoners. However, there are aspects of best practice and adaptation of the GOOP programme to the individual circumstances and contexts of individual prisons which have impacted positively on the health and wellbeing of both prisoners and staff. Unfortunately, currently there are many examples throughout the prison estate of the assets within prison sites being under-utilised, both in terms of the skills and abilities of prisoners and the facilities available. However, this aspect of the evaluation has also highlighted much enthusiasm from HMPPS and provider organisation staff to develop green and natural spaces for the prison setting as a whole, but also to the specific benefit of prisoners with more challenging health and social care needs.

### **Strengths and Limitations**

The strengths of this evaluation lie in the access the research team were able to have to engage with prisoners who are actively involved in GOOP and the ability to explore with them in depth their experiences of prison during and post-COVID-19 lockdown and the impacts of GOOP on their health and wellbeing during this period. This was thanks to the organisation of key prison staff and the willingness and enthusiasm of the participants who gave the research team rich qualitative data from their narrative accounts. The thematic analysis of this data has provided unique insights into the needs of specific cohorts within a prisoner population and the challenges they face regarding recovery from the pandemic, which remains in many instances at a slower rate within prisons than in the wider community.

The limitations of this evaluation lie in the small number of prisons (n=4) involved in the data collection (although they were selected on the basis of each being different categories of prison and

also to include a women's prison) and the inherent challenges in interviewing a vulnerable participant group who may be concerned with voicing criticisms in case this has repercussions for their participation in the intervention. The evaluation will continue until 2025 and expand to cover all additional North West prisons involved in the programme. This paper presents findings from the qualitative aspect of the evaluation so far. The research team are also collecting quantitative health and wellbeing monitoring in prisons using the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) combined with data using the Connectedness to Nature Scale (CNS). This is not currently at a statistically significant level to publish. When available, it will be presented in a future paper. The broader geographical roll out of GOOP over the next two years (to the North East, Yorkshire and South West of England) offers further opportunities to contribute more substantially to a greater understanding of the benefits and implications of connecting prisoners with nature via GOOP at a national scale by taking account of a wider range of contexts for impact in future research, policy and practice.

## **Conclusion**

The prisons landscape in England and Wales has changed dramatically since the beginning of the COVID-19 pandemic, with HMPPS having to change its entire operating system overnight (HMIP, 2023) and a greater understanding of how these changes have impacted the prisoners, staff and the prison setting is required. The paper is based on original data gathered from qualitative in-depth interviews and focus groups with prisoners and key prison staff and the findings have implications for future policy and practice, exploring: what works for whom, in what circumstances. Prisons in England and Wales remain under-utilised as sources of health and wellbeing improvement via nature-based interventions such as GOOP. First-hand accounts demonstrate the extent of the health and wellbeing benefits of participation in such an initiative. Other prisons which are not currently engaged with GOOP or utilising any form of therapeutic horticulture can discover the potential

benefits and can learn from different approaches offered in participating prisons. The evaluation highlights the importance of whole system, joined up working, using the environment as a tool for health improvement (individual) /public health benefit (community/societal) and the imperative for both policy and practice changes to secure novel ways in this unique environment that can improve prospects and opportunities for skills and employability that enhance health improvement and impact positively on resettlement for some of societies most disadvantaged and excluded individuals. It would be in the best interests of prisoners with high levels of complex health and social care needs to be able to continue with outdoor nature-based interventions and therapeutic horticulture such as GOOP. Whilst the pandemic was an unprecedented situation in our lifetime, the experiences of key staff and prisoners demonstrate that should such a situation arise again, it would not be in the best interests of either to follow the same protocols in prison, where a particularly vulnerable group were treated on an inequitable level in comparison to the wider community regarding their opportunities to maintain a level of mental wellbeing by experiencing nature-based activities.

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