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Planting seeds:

A feasibility study of the social and economic benefits of 'seedS', a mobile therapeutic healing environment designed for prisons

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Introduction

Built for observation and control, little has changed in the ideology and architecture of prison design in the past 200 years, with staff observing prisoners and governors observing staff and inadequate thought given to the physical environment's impact on the health and wellbeing of prisoners or staff. The traditional radial design of four cell blocks around a central atrium has remained consistent despite the use of former military sites, stately homes and orphanages and new wave prison design in the 1970's and 80's. Indeed the recent design of the Government's Wrexham 'Super' Prison flagship evidences this continuing trend.

The 94.15 per cent increase in prison population since 1993¹ and ² and its associated rising costs has meant that across the estate space is at a premium, cells have become offices, workshops have been built on exercise yards and cells designed for single occupancy now house two or more inmates. These pressures and the reduction in staffing have impacted on both prisoners and organisations delivering services in prisons, in particular in terms of appropriate space for one-to-one consultations, therapeutic interventions and purposeful activity and due to staff .

This paper reports on the feasibility and social and economic benefits of 'seedS', a mobile multimedia therapeutic unit designed to provide more space in prisons. It is based on a review of existing literature and

evidence from a case study from HMP Leeds. seedS has been designed to improve health and wellbeing in prisons through facilitating on the wings increased patient contacts, reducing costs to the prison and health services of cancelled clinics, escorting officers and Did Not Attend (DNAs), and improving/increasing the range of therapeutic and other interventions on offer.

Prisons

Prisons in the UK are facing major challenges according to the latest annual report from HM Chief Inspector of Prisons. Deaths, assaults, and self-harm have increased significantly resulting in safety levels that are at their lowest in 10 years. The number of suicides is now 40 per cent higher than it was five years ago.³

At the end of March 2015, 60 per cent (70 of the 117) of prisons in England and Wales were overcrowded⁴ with overcrowding levels between 165 per cent and 179 per cent in the 5 most overcrowded prisons.⁵ With plans for increases in prison capacity falling below National Offender Management Service (NOMs) projections for the prison population in 2020, pressure on prison numbers looks set to continue. Overcrowding impacts on the numbers of prisoners sharing cells and the space available for activities, support mechanisms and rehabilitation programmes. Overcrowding causes and/or exacerbates mental health problems, and increases rates of violence, self-harm and suicide.⁶

1. Ministry of Justice (2013) *Story of the Prison Population: 1993 -2012 England and Wales*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/218185/story-prison-population.pdf (Accessed: 11 August 2015).
2. Ministry of Justice, National Offender Management Service, HM Prison Service (2015) *Prison Population Figures: 2015. 18 Sep 2015 -6* Available at: <https://www.gov.uk/government/statistics/prison-population-figures-2015> (Accessed: 24 September 2015).
3. HM Inspectorate of Prisons (2015) *HM Chief Inspector of Prisons for England & Wales Annual Report 2014-15*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444785/hmip-2014-15.pdf (Accessed: 11 August 2015).
4. Prison Reform Trust (2015) *Prison: The Facts Bromley Briefing Summer 2015*. Available at: <http://www.prisonreformtrust.org.uk/Portals/0/Documents/Prison%20the%20facts%20May%202015.pdf> (Accessed: 11 August 2015).
5. Ministry of Justice (2015) *Population Bulletin: monthly August 2015*. Available at: <https://www.gov.uk/government/statistics/prison-population-figures-2015> (Accessed: 11 August 2015).
6. Penal Reform International (2015) *Overcrowding*. Available at: <http://www.penalreform.org/priorities/prison-conditions/overcrowding/> (Accessed: 11 August 2015).

There are now fewer staff looking after more prisoners. The number of staff employed in the public prison estate has fallen by 29 per cent over the past 4 years⁷ with staff (grades 2-5) reduced by 36 per cent over the same period.⁸ On top of less staff, prisons are faced with high levels of staff sickness. In 2013-14 the average days lost due to sickness were 11, compared to an average of 4.4 days in the labour market as a whole.⁹ At the same time purposeful activity that contributes to rehabilitation and resettlement is also at its lowest level in a decade.¹⁰ In only 25 per cent of adult male prisons were purposeful activity outcomes judged to be good or reasonably good, rising to 45 per cent for resettlement outcomes. The new core day and regime aimed at increasing prisoner work, activity and learning has been undermined by acute staff shortages.¹¹ There is a direct relationship between prisoners' perceptions of safety, their living conditions, availability of staff and their successful engagement in purposeful activities and rehabilitation work.¹²

Reducing re-offending

Reoffending currently costs the economy between £9.5 and £13 billion annually.¹³ Current challenges facing the prison service are in danger of undermining

the 'Transforming Rehabilitation' and 'Transforming Youth Custody' agendas.¹⁴ Overcrowding and staff shortages impact on the physical availability of space and access to it by prisoners, reducing access to 'through the gate' services and Community Rehabilitation Companies (CRC).

The links between poor health and reoffending are well established. Many factors are interlinked and can create a vicious circle on release for example substance misuse, pro-criminal attitudes, difficult family backgrounds including experience of childhood abuse or time spent in care, unemployment and financial problems, homelessness and mental health problems.¹⁵ Ex offenders with health problems are more likely to need support with housing, education or employment and find it more difficult to access mainstream help with increased health inequalities compounding their needs.

Drug users are estimated to be responsible for between 1/3 and 1/2 of acquisitive crime.¹⁶ Heroin and cocaine dependence as well as polydrug use increase the probability of reconviction,¹⁷ as does alcohol misuse.¹⁸ Treatment can cut the level of crime committed by about half.¹⁹ Symptoms of Major Depressive Disorder (MDD) and Anti-Social Personality Disorder (ASPD) also significantly increase the likelihood

7. Ministry of Justice (2014) National Offender Management Service Workforce Statistics Bulletin 31 December 2014. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407245/noms-workforce-statistics-december-2014.pdf (Accessed: 11 August 2015).
8. Prison Service Pay Review Body (2015) *Fourteenth Report on England & Wales 2015*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/412006/47256_Cm_9022_Prison_Pay_Review_2015_accessible.pdf (Accessed: 11 August 2015).
9. Office for National Statistics Sickness (2014) *Full Report: Sickness Absence in the Labour Market, February 2014*. Available at: http://www.ons.gov.uk/ons/dcp171776_353899.pdf (Accessed: 11 August 2015).
10. HM Inspectorate of Prisons (2015) *HM Chief Inspector of Prisons for England & Wales Annual Report 2014-15*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444785/hmip-2014-15.pdf (Accessed: 11 August 2015).
11. HM Inspectorate of Prisons (2015) *HM Chief Inspector of Prisons for England & Wales Annual Report 2014-15*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444785/hmip-2014-15.pdf (Accessed: 11 August 2015).
12. HM Inspectorate of Prisons (2015) *HM Chief Inspector of Prisons for England & Wales Annual Report 2014-15*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444785/hmip-2014-15.pdf (Accessed: 11 August 2015).
13. Ministry of Justice (2015) *Policy paper 2010 to 2015 government policy: reoffending and rehabilitation*. Available at: <https://www.gov.uk/government/publications/2010-to-2015-government-policy-reoffending-and-rehabilitation/2010-to-2015-government-policy-reoffending-and-rehabilitation> (Accessed: 12 August 2015).
14. Ministry of Justice (2013) *Transforming Rehabilitation: A Strategy for Reform*. Available at: <https://consult.justice.gov.uk/digital-communications/transforming-rehabilitation/results/transforming-rehabilitation-response.pdf> (Accessed: 12 August 2015).
15. Ministry of Justice (2013) *Transforming Rehabilitation: a summary of evidence on reducing reoffending*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/243718/evidence-reduce-reoffending.pdf (Accessed: 12 August 2015).
16. MacDonald, Z. Tinsley, L., Collingwood, J., Jamieson, P. and Pudney, S. (2005). *Measuring the harm from illegal drugs using the Drug Harm Index*. Available at: <http://webarchive.nationalarchives.gov.uk/20110218135832/rds.homeoffice.gov.uk/rdspdfs05/rdsolr2405.pdf> (Accessed: 13 August 2015).
17. Bennett, T. and Holloway, K. (2005), 'The association between multiple drug misuse and crime', *International Journal of Offender Therapy and Comparative Criminology*, Vol. 49 No. 1, pp. 63-81. Hakansson, A. and Berglund, M. (2012), 'Risk factors for criminal recidivism – a prospective follow-up study in prisoners with substance abuse', *BMC Psychiatry*, Vol. 12 No. 1, pp. 111-18. Kopak, A.M., Dean, L.V., Proctor, S.L., Miller, L. and Hoffmann, N.G. (2014), 'Effectiveness of the Rehabilitation for Addicted Prisoners Trust (RAPt) Programme', *Journal of Substance Use*, 2014.
18. Evidence from Surveying Prisoner Crime Reduction Survey, as reported in table 3.18, Ministry of Justice (2010) *Compendium of reoffending statistics and analysis* in Ministry of Justice (2013) *Transforming Rehabilitation; a summary of evidence on reducing reoffending*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/243718/evidence-reduce-reoffending.pdf (Accessed: 14 August 2015).
19. National Treatment Agency for Substance Misuse (2012) *Estimating the crime reduction benefits of drug treatment and recovery*. Available at: <http://www.nta.nhs.uk/uploads/vfm2012.pdf> (Accessed: 13 August 2015).

of reconviction one-year post release. Indeed depression should be viewed as a significant risk factor for reoffending.²⁰

Health

Prisoners' health and social needs are extensive and diverse, and many have poor physical and mental health with over 70 per cent of prisoners having two or more mental co-morbid conditions.²¹ High proportions of prisoners come from the poorest and most socially excluded communities and suffer health problems linked to deprivation including chronic diseases, mental health and substance misuse problems.²² An ageing population is increasingly challenging prisons. People aged 60 and over and those aged 50–59 are the first and second fastest growing age groups in the prison population with an increase of 146 per cent and 122 per cent of prisoners held in those age groups respectively since 2002.²³

Against this backdrop current concerns for prisoners' health and wellbeing are twofold; access to healthcare in terms of appropriate space and getting to appointments and secondly the negative impact of the prison environment on prisoners' health and wellbeing and the potential knock on effect of this by placing increased demands on stretched healthcare provision.

In his 2014-15 Annual Report the Chief Inspector of prisons was 'very concerned to see health services having to adapt to the reduced availability of custody staff and correspondingly less flexible access to patients due to changes to the core day. This affected

therapeutic care.' Owing to the need for additional security and movement through wings only possible at limited and specific times it is also not uncommon for vulnerable prisoners' access to services to be cut.²⁴ As a result of lack of staff to supervise treatment programmes, there is an increased risk of overdose due to medications not being given at therapeutic intervals. In some cases large amounts of medications are being given in-possession due of lack of access to prisoners.²⁵

Coupled with the challenges of less flexible access to patients is the physical availability of appropriate spaces necessary to deliver effective healthcare provision, be it screening, confidential one to one consultations or individual and group therapeutic programmes. The premium nature of space has meant that every available 'space' (office space, prison cell, wing based clinic room) is occupied.

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Prison Environments

The prison environment, physical and social, plays a key role in the health and wellbeing of prisoners and presents unique challenges for healthcare practitioners. Prisons are not nurturing places; they are forbidding from the outside, grey and visually impoverished on the inside²⁶ and referred to as 'anti-therapeutic'.²⁷ Designed around an economic model of mass imprisonment, rather than rehabilitation, they are hard environments, starved of natural light and constructed from materials that amplify sounds and suppress the senses, affecting both staff and prisoners. Noise is one of the prison environment's most persistent problems.²⁸ Communication is difficult with conversations shouted

20. Josefiën J.F. Breedvelt, Lucy V. Dean, Gail Y. Jones, Caroline Cole and Hattie C.A. Moyes (2014) *Predicting recidivism for offenders in UK substance dependence treatment: Do mental health symptoms matter?* Journal of Criminal Psychology RApT VOL. 4 NO. 2 2014, pp. 102-115.
21. Singleton N., Meltzer H., Gatward R., Coid J., Deasy D. (1998) *Psychiatric Morbidity of prisoners in England and Wales* London: ONS in Borrill J., Taylor D. A., (2009) *Suicides by foreign national prisoners in England and Wales 2007: Mental Health and Cultural Issues* Journal of Forensic Psychiatry and Psychology 20(6) (pp 886-905).
22. World Health Organisation (2010) *Prisons and Health* <http://www.euro.who.int/en/what-we-do/health-topics/health-determinants/prisons-and-health> accessed 21st November 2010 in Shepherd H.C. (2010) 'Unlocking the meaning behind prison healthcare policy. Could or should prisoners receive healthcare equivalent to that in the community?' unpublished.
23. Prison Reform Trust (2015) *Prison: The Facts Bromley Briefing Autumn 2015*. Available at: <http://www.prisonreformtrust.org.uk/Portals/0/Documents/Bromley%20Briefings/Factfile%20Autumn%202014.pdf> (Accessed:8 September 2015).
24. HM Chief Inspector of Prisons (2014) *HM Chief Inspector of Prisons for England and Wales Annual Report 2013–14*. London: Her Majesty's Stationery Office. Available at: https://www.justiceinspectorates.gov.uk/hmiprisons/wp-content/uploads/sites/4/2014/10/HMIP-AR_2013-14.pdf (Accessed: 12 August 2015).
25. HM Inspectorate of Prisons (2015) *HM Chief Inspector of Prisons for England & Wales Annual Report 2014-15*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444785/hmip-2014-15.pdf (Accessed:11 August 2015).
26. Ginn S. (2012) *Prison environment and health* British Medical Journal, 345 (Sep 17 1), pp.e5921-e5921.
27. Scott S. (2004) *Opening a Can of Worms? Counselling for Survivors in UK Women's Prisons*. Feminism & Psychology 14 (4):605-608.
28. Fairweather L., McConville S.,(Eds) (2000) *Prison Architecture Policy, Design and Experience*. Oxford:UK Architectural Press.

and sleep often disturbed resulting in stress and discomfort.

Environmental Design and Health

The healthcare industry recognises the impact of the built environment and architecture and design on wellbeing and performance. Design that is psychosocially supportive can stimulate and engage people mentally and socially, provide a sense of coherence and instigate a mental process that fosters positive psychological emotions and reduces anxiety.²⁹

Architectural design focussing on comfort, safety, attractiveness and privacy can be therapeutic, restorative and improve treatment outcomes,^{30 31} resulting in patients being more receptive to rehabilitation and employees, patients' families and other visitors feeling more relaxed, safe and secure in such settings.³²

Colour palettes, soft and varied materials, better acoustics and natural light have been shown to have a positive impact on the emotional states prevalent among prisoners and staff, particularly anger, stress, anxiety, sadness and depression.³³ It is possible that colours can affect brain activity to create a sense of wellbeing.³⁴

Evidence from The King's Fund's work has shown that improving the environment can significantly affect how people feel and make a significant difference for the people who care for them: violent incidents among patients can be reduced, while stress levels for staff decrease. In the prison environment, where the physical and mental health of offenders can play a critical role in their behaviour, improving healthcare environments can have wider positive benefits for staff teams and the prison population.³⁵

seedS

Designed as a mobile therapeutic space for reflection, contemplation and self-development for prisoners and staff, seedS will enhance clinical provision within prison environments. Small and personal with a form taken from nature designed to protect and



seedS in HMP Leeds August 2015.

nurture growth; seedS break with institutional design of repetition and scale. seedS is portable offering multimedia space that can be moved to different areas and wings within a prison, thus alleviating access problems caused by reduced staff numbers. Equipped with living colour lamps and controllers that can be used for light therapies and audio visual equipment that offer access to guided interventions, seedS provides an appropriate space for confidential one-to-one meetings and small group sessions of up to 4 or 5 people.

seedS has been developed by architectural designer, Karl Lenton from SAFE Innovations working closely with NOMS, prison security, prison governors, Leeds Community Healthcare NHS Trust clinical teams, prisoners and prisoner healthcare representatives, Stage

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29. Dilani, A (2008) *Design and Health — A Health Promoting Approach on Prison Environments*. Sweden: Karolinska Institute.
30. Grosenick, J. K. & Hatmaker, C. M. (2000). *Perceptions of the importance of physical setting in substance abuse treatment*. *Journal of Substance Abuse Treatment*, 18(1), 29–39.
31. Herzog, T. R., Maguire, C. P. & Nebel, M. B. (2003). *Assessing the restorative components of environments*. *Journal of Environmental Psychology*, 23, 159-170.
32. Edvardsson, D. J., Sandman, P-O. & Rasmussen, B. H. (2005). *Sensing an atmosphere of ease: a tentative theory of supportive care settings*. *Nordic College of Caring Sciences*, 19, 344-353.
33. Krueger J., MacAllister J.A. (2015) *How to Design a Prison That Actually Comforts and Rehabilitates Inmates*. Available at: <http://www.fastcoexist.com/3044758/how-to-design-a-prison-that-actually-comforts-and-rehabilitates-inmates> (Accessed on 15 September 2015).
34. Janssens, J. (2001). *Facade colors, not just a matter of personal taste: A psychological account preferences for exterior building colors*. *Nordic Journal of Architectural Research*, 14, 17-21.
35. The Kings Fund. *The Enhancing the Healing Environment (EHE) programme*. Available at: <http://www.kingsfund.org.uk/projects/enhancing-healing-environment> (Accessed:8 September 2015).

One Creative services and University of Leeds. seedS has an easy to clean smooth internal surface to meet infection control standards. Staff and prisoner safety issues are addressed with an evacuation door at the rear providing a second exit route. This RIBA nominated design propagated through the Free Unit in The CASS School of Art Architecture and Design at London Metropolitan University is a catalyst for change and transformation of current UK prison design and a new model for health and wellbeing delivery.

The potential benefits of seedS are threefold, firstly improving the delivery of healthcare in prisons by providing sustainable access at the point of need. Secondly on benefits to the bottom line. Using seedS on prison wings brings economic benefits including direct cost savings in terms of reduced need for additional officer security during clinic times, reduction in the levels of DNAs, increased clinic time and increases in the number of patients seen as a result of reductions in time lost escorting prisoners to clinics. In addition, wing based availability of space for therapeutic activities increases both the potential of more patient contacts per year, the range of treatments available and the indirect savings from patients receiving treatment/support earlier that potentially negates the need for more expensive treatment options. Thirdly through increasing efficiency in use of staff time, resources could be used to more efficiently eg; to enhance purposeful activity.

Potential drawbacks of seedS might fall into three areas: confidentiality, staff and prisoners response to seedS and security. Medical confidentiality will require management; the visibility of prisoners attending appointments on the wing and the potential for others to make assumptions on their health issue could result in prisoners preferring not to attend appointments. Using seedS for a variety of purposes would improve privacy and reduce risk of stigma developing. Secondly, staff and prisoners may not 'take' to seedS. This might be due to their lack of knowledge of its purpose, lack of control over its use or for security reasons. Involving staff from all disciplines and prisoners in the introduction, uses and location of seedS in a new establishment increases their sense of ownership and control, empowering them to make utility decisions for seedS that best fit their particular service. Finally security is the principal factor in all secure environments; for the safety of staff and prisoners. seedS was designed with input from staff and prison security, with security alarm and two exit points. Staff would be expected to follow standard security risk procedures as they would in any other treatment room.



Rear view through evacuation hatch.

Case Study HMP Leeds

A case study was undertaken in collaboration with the Prison Service and Leeds Community Healthcare NHS Trust (health care providers at HMP Leeds) to investigate the potential impact seedS could have on healthcare delivery in prisons. Leeds Beckett University researchers³⁶ analysed 3 years of data on DNAs (between April 2012- March 15) and just over 1 year's data on cancelled clinics (2014/15- June 2015). Each month around 10 per cent of all appointments were missed. At an estimated cost of £108 per missed appointment³⁷ and not taking into account any associated financial costs of potential increases in treatment/healthcare or costs to the prison service as a result of missed appointments, the cost of DNAs to the NHS over the three year period could potentially be in excess of £2m in HMP Leeds.

In terms of cancelled clinics at HMP Leeds, an average of 3.5 clinics per month (43) were cancelled in 2014/15 recorded as a result of benchmarking, that is a reduction in prison officers available to escort prisoners. Between April 2015 and June 2015, this figure increased to an average of 5 clinics per month

36. Ashley L., Davies W., Nichols H. (2015) *Data Analysis at HMP Leeds.*: unpublished.

37. NHS England (2014) *NHS England using technology to beat cost of missed appointments.* Available at: <http://www.england.nhs.uk/2014/03/05/missed-appts/> (Accessed: 16 July 2015).

suggesting a growing trend of cancelled clinics. All smoking cessation courses have been suspended as a result of the lack of availability of officers to attend. The availability of seedS offers the opportunity for wing based healthcare provision and therapeutic sessions, reducing demands on staff availability for escort and increasing efficiency in use of staff at clinics or sessions and promoting attendance at appointments for prisoners who for a variety of reasons have missed appointments.



HMP Leeds nurse with healthcare representatives in seedS.

Other Potential Uses

seedS has the potential to provide a safe environment that is conducive to healing, 'transports' the patients out of the physical building blocks of a prison to a space of reflection and change. seedS can be used for a variety of purposes including:

- Confidential one to ones between patient and clinicians.
- Guided interventions for up to four/five people for example relaxation, mindfulness.
- Smoking cessations, one to one or groups.
- Health Promotion activities.
- Multi media facilitated therapies.
- Confidential Assessment.
- Drug and Alcohol group work.
- Resettlement services.

Audio-visual Stimulation

seedS can facilitate the delivery of Audio-visual Stimulation (light and sound) to aid in the clinical care of a wide range of issues including: ADD/ADHD, Seasonal Affective Disorder (SAD), Addictions, Sleep Disorders, Depression, Migraines, Stress and Anxiety, chronic pain/pain management, PTSD, skin conditions and Chronic Fatigue.

Research has shown that light therapy can benefit patients with dementia, increasing sleep quality, and total sleep time, reducing depression and agitation.³⁸ This approach could improve the wellbeing of prisoners with dementia and provide a cost effective non-pharmacological approach. Research indicates that prisons are ill equipped to manage the growing challenge of inmates with dementia.³⁹ seedS provides a safe and calming environment where anxiety levels can be reduced and familiar music and images can help to recall memories thereby improving wellbeing.

Emotional Intelligence

Studies in offender psychology consistently show a distinct lack of emotional intelligence in prison populations and evidence suggests that emotional intelligence may be a factor in criminal behaviour.⁴⁰ Research shows that learning to regulate and enhance emotional management skills could be key factors in the successful rehabilitation of offenders⁴¹ and is thought to lead to fewer incidences of violence and self-harm in prisons.⁴² Despite the need to address emotional learning opportunities, little to no provision has been developed and there remains a limited range of activities within prison that provide any opportunity.

Phototherapy is a cost-effective method to provide a unique means of expression for those who are rarely given a voice, overcoming cultural and language barriers. Evidence shows phototherapy empowers those without emotional literacy or emotional intelligence and could be a helpful approach to therapeutic interventions in prisons in the future.⁴³ seedS is an ideal environment for delivering

38. Figureiro M et al (2014) *Tailored light treatment improves measures of sleep, depression and agitation in persons with dementia living in long term care facilities*. 28th Annual Conference of the Associated Professional Sleep Societies. Available at: http://www.lrc.rpi.edu/programs/lighthealth/img/Figueiro_SLEPPPoster117_June2014.pdf (Accessed:13 August 2015).

39. Moll, A. (2013) *Losing Track of Time, Dementia and the Ageing Prison Population, Treatment Challenges and Examples of Good Practice*. Mental Health Foundation Available at: <http://www.mentalhealth.org.uk/content/assets/PDF/publications/losing-track-of-time-2013.pdf?view=Standard> (Accessed:13 August 2015).

40. Santesso, D. L., Reker, D. L., Schmidt, L. A. & Segalowitz, S. J. (2006). *Frontal electroencephalogram activation asymmetry, emotional intelligence*. *Child Psychiatry and Human Development*, 36, 311-328.

41. Gaum, G., Hoffman, S., & Venter, J. H, (2006). *Factors that influence adult recidivism: An exploratory study in Pollsmoor Prison*. *South African Journal of Psychology*, 36(2):407-424. Saita, E., Acquati, C. & Kayser, K. (2011). *Famiglie, fonti di stress e capacità di fronteggiare gli eventi. Il caso della famiglia statunitense*. *Pensare alla salute e alla malattia. Legami tra mente, corpo e conteso di appartenenza*, 20:69-88.

42. Safer Custody Group (2002). *Safer Custody Report for 2001: self-inflicted deaths in Prison Service custody*. London: HM Prison Service.

43. *Lifelong Learning Programme — Phototherapy Europe in Prisons*. EU funded project 2013/14 Literature Review. Available at: <http://www.phototherapyeuropeinprisons.eu/literaturereview/> (Accessed:13 August 2015).

Phototherapy, facilitating increased self awareness, improved social skills, greater optimism, emotional control and flexibility — all of which has the potential to reduce reoffending, make prisons safer and reduce levels of violence, self harm and suicide.

Mindfulness The recent Mindfulness All Party Parliamentary Group inquiry recommended that the criminal justice sector develop and evaluate pilot projects to identify appropriate forms of mindfulness teaching and establish their acceptability and effectiveness for both prisoners and staff.⁴⁴ Mindfulness is correlated with emotional intelligence, good social skills and the ability to cooperate and see others' perspectives. People who practice mindfulness are less likely to be defensive or aggressive when they feel threatened, more in control of their behaviour and able to override habitual thoughts and feelings and resist acting on impulse.

Mindfulness - Based Interventions (MBIs) can be delivered through practitioner led courses or guided mindfulness application (apps), for example Headspace, which can be downloaded onto multimedia devices. seedS can enable the delivery of mindfulness interventions in a therapeutic space on wings with controlled access to multimedia facilities. In periods of lock down, seedS can be used to improve staff wellbeing by providing guided interventions or quiet reflection with the aim of reducing levels of stress, sickness and absence. In 2013-14 the average days lost due to sickness across the prison service was 11, compared to an average of 4.4 days in the labour market as a whole.⁴⁵

Education

As a portable multimedia space seedS could add significant value to the Transforming Youth Custody agenda. Figures suggest 86 per cent of young men in Young Offender Institutions (YOIs) have been

excluded from school at some point, and over half of 15–17 year olds in YOIs have the literacy and numeracy level expected of a 7–11 year old. Research indicates that 18 per cent of young people in custody have a statement of special educational needs.⁴⁶ seedS could enhance the learning experience, providing an engaging environment and facilitating creative approaches to teaching that motivate and inspire this often hard-to-reach group. seedS has the potential to impact significantly on numeracy and literacy levels, on visual learners and those with learning disabilities simply by providing the right environment to maximise learning. Providing high quality education to young offenders in custody is central to tackling high levels of reoffending.

Deaths in Custody

Increasing access to healthcare provision/therapeutic programmes could reduce both levels of self-inflicted deaths and the economic and social costs associated with it. In 2011, the cost of a suicide in prison, including assessment of staffing, healthcare and mental health provision, costs of escorting the prisoner, days lost due to sickness absence, the cost of the inquest, the cost of the investigation following death, cost of the services of the Prison Liaison Officer, funeral

seedS can enable the delivery of mindfulness interventions in a therapeutic space on wings with controlled access to multimedia facilities.

contributions, visits and memorials was estimated at £1,210,000.⁴⁷ With an increase in the number of suicides by 40 per cent over the past 5 years, these costs are increasing. seedS can be located on wings to improve access to confidential care at the point of need with the potential of delivering a range of health and wellbeing interventions that may prevent suicides. SeedS can be quickly located on a wing where a suicide has taken place and used as a resource for counselling, reflection and promoting wellbeing in those affected. seedS has the potential to impact on both the rising economic and social costs of suicide in prisons.

44. The Mindfulness Initiative (2015) *Mindful Nation UK Interim Report of the Mindfulness All Party Parliamentary Group*. Available at: <http://www.oxfordmindfulness.org/wp-content/uploads/mindful-nation-uk-interim-report-of-the-mindfulness-all-party-parliamentary-group-january-2015.pdf> (Accessed:8 July 2015).
45. Office for National Statistics Sickness (2014) *Full Report: Sickness Absence in the Labour Market, February 2014*. Available at: http://www.ons.gov.uk/ons/dcp171776_353899.pdf (Accessed:11 August 2015).
46. Ministry of Justice (2014) *Transforming Youth Custody Putting Education at the Heart of Detention*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/181588/transforming-youth-custody.pdf (Accessed:13 August 2015).
47. Ministry of Justice (2011) *Offending employment and benefits — emerging findings from the data linkage project*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/217428/offending-employment-benefits-emerging-findings-1111.pdf (Accessed:12 August 2015).

Transforming Rehabilitation

For effective service delivery it is essential that Community Rehabilitation Companies (CRC) offer consistency and continuity of prisoner appointments, to build trust and understanding to ensure healthcare plans, housing, employment and resettlement are in place, to reduce reoffending on release. There is significant potential for through the gate/CRCs to use seedS on prison wings to access prisoners, with minimum disruption to regimes and provide a conducive environment to facilitate the discussions needed to ensure a smooth transfer back into the community.

Conclusions

With financial restraints impacting on the prison service, evidence that therapeutic clinics are being cut and an increasing number of appointments being missed, it is likely that more behaviour and therapeutic programmes could be cut or not completed, leading to potential increases in the cost of reoffending to the economy.

Health and wellbeing matters in prisons because of its association with positive behaviour, its positive

influence on mental health, and on improving recovery from illness, the implications for treatment decisions and costs and ultimately its impact on reducing the healthcare and reoffending burden.⁴⁸

The economic costs of health and wellbeing in prisons are high, but the economic and social costs of not getting it right are higher. With tightening financial restraints on services it has become more and more important to identify cost effective solutions to delivering services that improve prisoners health and wellbeing, make prisons safer environments to be in and reduce the risk factors associated with reoffending. Taking services to the prisoners on wings reduces the costs associated with DNAs and escorting prisoners.

seedS can provide the 'appropriate space' at wing level for therapeutic and behaviour programmes minimising the pull on already stretched staff resources. The first seedS has been planted into HMP Leeds; the task now is to evaluate the use, effectiveness and outcomes of seedS for prisoners, staff and prison management and to understand the potential for designers and architects to address some of the challenges faced by the prison service now and in the future.

48. Department of Health (2014) Well-being : *Why it Matters to Health Policy*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/277566/Narrative__January_2014_.pdf (Accessed:12 August 2015).