Hannah Baumer, PhD Researcher
School of Law, Royal Holloway, University of London
When I was asked to present at the PET Annual Conference in 2016 little did I know that night would be life changing - not for me, but for one of those in the audience. After my speech, I was approached by a man I now call a friend, LJ Flanders.

LJ’s story is now well documented. He has shown that someone who is unfortunate enough to spend time in prisons can come out and turn their life around. LJ had spent 4 years trying to get his book in to prisons but no one was there for him, no one had given him the opportunities he need to turn his dreams of a business into a reality. So, I gave LJ £20 of my own money, he gave me a copy of his book and I told him that I would look for whatever opportunities that would enable him to prove his product.

Six months later LJ applied for a grant from the NOMS National Grants Programme. He was successful and came to Wandsworth and delivered his newly developed Cell Workout workshop. I was the Executive Governor at the time, with diminished resources and struggling to be able to offer a consistent regime, LJ’s product provided us with an opportunity to train our men to be able to work out in their own space, at a time that suited them, and in a way that helped them meet their own goals.

Not a popular decision with some of my staff group, we persevered and worked through the issues. LJ’s product was set of keys was seen by many as revolutionary. But his perseverance and determination meant that he won over these most difficult members of my team and proved the project didn’t step on the toes of those who worked in the Gym but complemented this really important work.

His work speaks for itself. The outcomes you will read about should not be a surprise, what should be is why we are not doing more of this work in our prisons. Having led in the important area of prison reform I know that we need this type of approach to make a difference to those who spend time in our prisons, not just those who have committed to custody, but those who work there.

The reform agenda allowed us to test new ways of working – the biggest endorsement comes from the men who participated in the programme, but they also came from my staff group who reported the benefits this programme had on the behaviour of our men. The way they interacted, responded to their request and lived their lives; it provided purpose and energy. The manager responsible for the wing the first programme ran on told me ‘LJ should be a permanent member of staff if he can have that much impact in the way the wing operates’ – great words indeed.

I am so proud of this work, the results that you will read about here and the opportunity it has afforded LJ. I hope this is a spring board on to great things – no more so for the opportunity it provides the men and women in our prisons to be fit, lead healthy lives and, like LJ, change their lives forever.

FOREWORD
IAN BICKERS
The Cell Workout Workshops and future programmes of prisons across the UK with the aim to increase well-being through the adoption of healthy behaviours.

PARTICIPANTS

The workshops were delivered across five different prisons which enabled participation from a diverse group, including reoffenders, sentenced and ‘detoxing’ prisoners. Participants applied to the workshops on a voluntary basis and a total of 105 prisoners aged between 18 – 62 years old (M = 34.86) were accepted onto ten individual workshops; 74 of these completed the full two weeks.

MEASURES

A mixed-methods approach across physiological and psychological outcomes was adopted to create a comprehensive understanding of the workshops’ impact on participants. This comprised a ‘health MOT’ including measures of body fat, muscle mass, lung capacity and heart rate taken before and after the workshops, as well as self-report measures of exercise motivation, physical and mental well-being and perceived autonomy support taken immediately before the start of the workshops (start), immediately after the two-week workshop (end) and between 2-6 months following completion of the workshop (follow-up).

Qualitative measures included open survey questions regarding participants’ experiences of the workshops, face to face interviews with twenty participants across nine of the cohorts, and personal diaries that participants were encouraged to keep throughout their time on the workshop.

FINDINGS

Participants saw a significant improvement across eight physical health outcomes at the end of the workshops, including body fat and lung capacity. For example, the number of cigarettes smoked per day had significantly decreased at the end of the workshop, and smokers’ readiness to use physical activity to support smoking cessation increased throughout the workshops and remained significantly higher at follow-up. In terms of psychological well-being, participants saw a significant increase in emotional well-being, vitality and general health. The three basic psychological needs required for exercise motivation (relatedness, competence and autonomy) had all increased significantly from the start to the end of the workshop, and this impact remained true for relatedness and competence at follow-up, although autonomy had begun to decrease. Unfortunately, follow-up data also revealed that smokers had reverted to smoking as many cigarettes as they had before the workshop, and measures of emotional well-being and vitality were significantly lower than they had been at the end.

Qualitative analysis highlighted changes in exercise behaviours from solitary, weights-based exercise to a preference for more group- and cardiovascular exercise, with participants highlighting the positive impact this form of exercise had on their ability to focus, energy levels throughout the day and motivation for further exercise. The workshops also prompted behaviour change outside of exercise, and more than forty participants expressed an interest in taking part in educational courses within the prison at the end of the workshop, with eighteen participants successfully obtaining funding for long distance learning courses through the Prisoners’ Education Trust.
Factors that mediated prisoners’ positive outcomes were reflective of relatedness, competence and autonomy. Participants enjoyed a strong sense of comradery within the group, led by a sense of connectedness with L. J. and a common goal that was positive and achievable. Participants’ competence was supported through the presentation of content that was both challenging and personal to them as prisoners, whilst opportunities for autonomy were provided by allowing participants to identify why making healthy choices is important to them personally, before introducing ways to take control of their health whilst in prison. These elements created a supportive learning environment in which prisoners felt capable and driven to engage with content that could be applied to the management of daily life in the prison, giving them the agency to use their time more positively and begin looking ahead to continue their engagement in healthy behaviours following release.

CONCLUSIONS

Through the creation of a supportive environment which endorses choice and control, allows for skill development and provides a sense of affinity, the workshops promoted prisoners’ motivation to engage in healthy behaviours in a way that is rarely encountered in prison. Unfortunately, the limited resource available to deliver the workshops meant that there was no long-term engagement with participants following completion, and this resulted in the diminishing of some important positive outcomes at follow-up.

KEY RECOMMENDATIONS

Based on the outcomes of this evaluation future workshops should consider two key factors; provision of long-term support and maintaining a sense of relatedness through a positive social network. To achieve this, workshops should look to employ serving prisoners to act as mentors and provide ongoing support to participants following completion. This would include capitalising on inflated motivation levels at the end of the workshops by signposting prisoners to relevant support in the prison, providing an ongoing review of health-related goals, and delivering group workouts to maintain exercise motivation. It is important to avoid promoting a culture of conflict between prisoners and staff by delivering a programme that is seen to be entirely outside of prison management, and as such the management and delivery of workshops should be led by prison staff alongside serving prisoners, ideally through the PE Department, which would also ease the logistic delivery of the workshops.
Cell Workout is the title of a book written by ex-prisoner, L. J. Flanders, which provides an extensive guide to bodyweight exercises, inspired by L. J.’s creative means of keeping fit inside the confines of his own cell whilst serving a sentence at HMP Pentonville. L. J. takes the reader through basic training principles, before providing a series of bodyweight exercises, from mobilisation techniques through to cardiovascular workouts, strength training, and finally relaxation and meditation. Cell Workout (CW) aims to promote both physical and mental strength and can be adopted by individuals of all fitness levels, both inside and outside of prison.

In prison, people can discover new things and improve themselves in many ways, faith, fitness, a new language, education, skills and qualifications that may lead to job opportunities. In my case, I decided to make use of my time and channelled my energy into exercise and fitness... the ’Cell Workout’ uses the bodyweight resistance training method and can be performed in a confined space... The training goal is simple—total physical fitness combined with a positive state of mind.

Flanders, 2016

The diverse and unpredictable nature of the prison environment does not lend itself well to empirical research, and academic studies into the impact of physical activity on prisoners’ well-being are currently sparse. However, whilst academic research grows, there are pockets of good practice and experience across various practitioners and organisations which can make a valuable contribution to the existing literature. Academia and practice often operate in silos, despite there being a great deal to learn from one another in the field of prison research. In acknowledgement of this, the process of developing the Cell Workout principles into a working programme will include consultation with academics from Royal Holloway, University of London, as well as practitioners from the Alliance of Sport for the Desistance from Crime (ASDC).

WORKSHOP DEVELOPMENT

The theoretical framework used to support the development of the workshops and underpin the evaluation is self-determination theory (SDT; Ryan & Deci, 1985). The key principles of SDT outline three basic psychological needs; competence, relatedness and autonomy, all three of which are required for self-motivation, social functioning and personal well-being. SDT proposes that motivation sits on a self-determination continuum from amotivation (no action at all) to extrinsic motivation (engaging in activities for external reasons) and ending with intrinsic motivation (engaging in behaviours for internal reasons of pure interest and enjoyment). Fortunately, it is possible over time for an extrinsically motivated behaviour to move across the continuum and become more internal to us, aligning with our own values and enabling us to regulate these behaviours on our own, without the need for external Influence. This is where the three basic needs play a crucial role, as they are the key to internalising our motivation. If we feel a sense of relatedness, competence, choice and control for a behaviour, then over time we will become internally motivated to engage in that behaviour, which in turn makes us far better at overcoming any barriers. This autonomous regulation of motivation from external to internal is also thought to be a key factor in the ability of exercise to enhance mental well-being (Ryan and Deci, 2000; Biddle et al., 2000; Power et al., 2011),
improve exercise persistence (Sarrazin et al., 2002), and increase future intentions to exercise, current exercise behaviour and physical fitness across both leisure and exercise contexts (Chatzisarantis & Biddle, 1997; Edmunds, Ntoumanis, & Duda, 2006; Landry & Solmon, 2004, Mulian & Markland, 1997; Rose, Parfitt, & Williams, 2005; Wilson & Rodgers, 2004; Wilson et al., 2003).

It is not just academia that recognises these basic needs may provide the framework to promote the long-term behavioural change and enhanced well-being which is so crucial in prisoner rehabilitation. It is not just academics who consider that engagement with sport and exercise, and interestingly, three of these strongly reflect the basic psychological needs; being adaptable to needs (promoting competence), encouraging ownership and promoting choice (autonomy), and using relatable coaches (relatedness). This is a clear and positive indication that findings from practice and academia can support one another, and reinforces the strength of SDT as a framework on which to develop the workshops.

Crucially though, the potential benefit to prisoners of engaging in an intervention such as Cell Workout goes far beyond increasing their motivation to exercise. As self-determination theory would posit, prisoners’ successful engagement in one healthy behaviour, such as exercise, will increase their self-efficacy and in turn promote internal regulation of their motivation to engage in further healthy behaviours, such as building positive relationships or engaging in education. Thus, it can be argued that a prisoners’ physical and mental health underpin the process of engaging in further so-called “healthy behaviours”, and these three basic needs may provide the framework to promote the long-term behavioural change and enhanced well-being which is so crucial in prisoner rehabilitation.
Had you heard about distance learning before the workshop?

“Not really no... I might’ve heard it but it wasn’t one to one, sort of, having to listen to it. So I got intrigued... and I’ve just put my sheet in for an accountancy course.”

How would you summarise your experience of the workshop to others?

“[The] course was fantastic, [I] learnt a lot of new ways to exercise [and it] really changed my way on training. I feel like a different person a lot more fitter and healthy. LJ was a really good teacher not only with training side but with the motivation and vision side.”

The evaluation of the workshops was conducted by a doctoral student from the School of Law at Royal Holloway, University of London, as part of a PhD research project exploring prisoners’ motivation to engage in healthy behaviours. The measures used to support the evaluation were based on an extensive literature review of prisoners’ well-being, exercise psychology, and the use of sport and exercise to promote desistance from crime.

ETHICAL CONSIDERATIONS

Full ethical approval was obtained from the National Offender Management Service (NOMS) prior to commencement of the evaluation. There were no known risks to participants associated with taking part in the evaluation. Participants and interviewees were made aware that they did not have to take part in the evaluation, but that by completing questionnaires and being interviewed they consented to their responses being used to evaluate the programme, and if they wished to withdraw their data at any point up to a month following the follow-up they were free to do so without providing a reason. Interviewees were given a full information sheet (appendix A) and were asked to sign a consent form (appendix B) prior to the commencement of the interview. Participants were free to speak to either L. J. or the researcher about the evaluation, and this final evaluation report will be made available to the prison for participants to read. Completed interviews and surveys were anonymised and participants are referred to by pseudonyms and unique identifiers, all surveys and diaries are stored in a locked filing cabinet. Participant responses and personal information is stored on separate electronic databases to further avoid the potential of access to identifiable data and both are encrypted and password protected.

Whilst inside the prison the researcher ensured her own safety by being in the company of L. J. at all times when on the wings, and ensuring that the security team were well informed of her presence in the prison. The researcher kept regular contact with her supervisors throughout and discussed any concerns and impact with them, and she also had access to a prison researcher peer support network and a University counselling service.

METHODOLOGY

The present evaluation applied a mixed-methods design to measure physical and psychological health outcomes, as well as various measures of engagement and progression for all participants who took part in the Cell Workouts Workshops at HMP Wandsworth. The measures used are informed by an extensive review of relevant psychological literature and focus on two key elements,

• The impact of the workshops on participants’ physical and mental well-being
• The impact of the workshops on participants’ engagement with healthy behaviours beyond exercise

A recent systematic review of the impact of sport-based interventions on the psychological well-being of people in prison by Woods, Breslin and Hassan (2017) proposed that future research of this kind should make clear and balanced choices in relation to measurement scales, using a broad range of robust measures focusing on both increases in well-being and decreases in ill-being, with a specific definition of psychological well-being as well as utilisation of pre-post designs and follow-
up data. Woods et al. (2017) review also provides a useful summary from the findings of four qualitative and semi-structured interviews reviewing the impact of sport-based initiatives in prisons (including Lieberman, 2007; Meek and Lewis, 2014; and Parker et al., 2014), highlighting the importance of providing opportunities for teamwork, personal and shared achievements, supportive and encouraging environments and positive self-presentation as mediators of impact (p. 60, Woods et al., 2017).

In response to Woods, Breslin and Hassan’s (2017) timely review, the present evaluation employs a broad range of qualitative and quantitative measures with a strong focus on increases in well-being, as well as considering decreases in ill-being. Psychological well-being is defined in terms of five domains outlined in the health-related quality of life measure, and data is obtained at three time points: pre, post and follow-up. The importance of teamwork, achievements and supportive environments as highlighted by Meek and Lewis (2014) is considered through a measure of perceived autonomy support, which asks questions related to the participants’ relationship with their coach and fellow participants, as well as being a focus on one to one interviews with participants at follow-up.

Meek and Lewis’ (2014) review of a sports initiative for young men in prison highlights the need for future initiatives to draw upon behaviour change theories to assist in our understanding of the specific role that sport has to play in sport-based interventions within prison populations. This is supported by Woods et al. (2017) review which proposes that testing behaviour change theories within interventions leads to a clearer understanding of what works and why, facilitating the development of practical guidelines for prisoners to use in sport and exercise service provisions that explicitly target psychological well-being. The measures used in the present study are underpinned by Self-Determination Theory of Behaviour Change (SDT; Ryan & Deci, 1991, 1995; 1985; Morgan, 1997; DiLorenzo et al., 1999; Daley & Maynard, 2003; Stern & Clasby, 1982). Reviews such as these highlight a distinct lack of consistency across exercise psychology studies in terms of the exercise type, intensity, frequency and duration applied. Few studies describe the initial fitness of subjects or minimum fitness improvement required to achieve allover levels of mood disorder, and therefore they may not be appropriate for the ‘normals’ which are often being assessed. Dishman (1982) presents a strong focus on increases in well-being, as well as decreases in ill-being. Psychological well-being is defined in terms of five domains outlined in the health-related quality of life measure, and data is obtained at three time points; pre, post and follow-up. The importance of teamwork, achievements and supportive environments as highlighted by Meek and Lewis (2014) is considered through a measure of perceived autonomy support, which asks questions related to the participants’ relationship with their coach and fellow participants, as well as being a focus on one to one interviews with participants at follow-up.

Due to the subjective nature of measures for both mental well-being and exercise, empirical studies in this field share many communicative problems, including the reliability of measures, or reporting and subsequent interpretation of findings, with a plethora of research addressing these methodological weaknesses. However, there are crucial questions around the point at which exercise begins to alleviate mood disorders or affect mood states. In addition to this, the same studies rely largely on self-rating scales of psychological variables usually developed for use on clinical populations, and therefore they may not be appropriate for the ‘normals’ which are often being assessed. Dishman and Buckworth (1997) echo this sentiment by stating that research on exercise determinants and adherence is often limited in its measurement methods by a lack of standardised psychological variables. Variations in sample characteristics, a lack of studies using the same variables making it difficult to compare results, may account for some inconsistencies in findings, and the use of self-reported measures versus objective measures yielding different results, with measures ranging from retrospective self-reporting, daily self-reporting, surveillance and observation. The present evaluation follows an extensive review of the empirical studies in the field of well-being and exercise, and as a result aims to address some of the issues which currently exist by validating existing measures of exercise motivation and self-determination theory measures appropriate for use on prison populations.

In a bid to create a better understanding of ‘what works’ in terms of sport and exercise in prison, the present research aims to support the development of the ToC as presented by the ASDC, particularly the second focus area of Physical and Mental Well-being which is presented through the lens of five elements: physical health, healthy lifestyles, mood/increased well-being, sense of release and safeguarding self and others. ASDC offer training to organisations to support them in their application of the framework, this includes recommended areas around appropriate ways to measure outcomes. The present research will use the outcomes from the CW workshops to inform ASDC on the use of psychological variables and behavioural measures appropriate to the ToC and the prison population.

MEASURES

The following methods were adopted to measure prisoners’ engagement and progression across several areas:

1. Surveys including quantitative and qualitative responses completed at three time points; two days before starting the workshop (start); on the final day of the workshop (end); and between 2-6 months following the workshop (follow-up)

2. A series of physiological measures known as a “health MOT” completed on the first day of the workshop (start) and the final day of the workshop (end)

3. Daily diaries kept by each participant throughout their time on the workshop recording their activity, thoughts, mood, diet, energy levels and anything else of relevance.

4. Individual face to face interviews conducted with twenty participants across nine of the ten workshops

5. On the Friday before each workshop the prison provided a list of all the participants’ cell numbers. This gave L. J. an opportunity to speak to each participant individually, letting them know their application was successful, informing them of the time slot and location for their health MOT on the following Monday, giving them an opportunity to

“I think it has, [had a long-term impact] it’s made me think more about life after prison, which I completely wasn’t interested in, also in making solid plans.”
Physiological Measures

On the first Monday and final Thursday of the workshop L. J. carried out a “health MOT” on each participant measuring the following:

- Weight
- Body fat
- Water levels
- Muscle mass
- Bone density
- Basic metabolic rate (BMR)
- Active metabolic rate (AMR)
- Blood pressure
- Heart rate
- Pulse rate
- Blood oxygen
- Lung capacity

Psychological Measures

All measures used in the present study were reviewed for suitability on the prison population, questions were rephrased if possible, or removed if they were deemed entirely unsuitable, for example, relating to one’s ability to interact with family and friends. The final measures were then compiled into four versions of a complete survey, each with a different order of questions to minimise the effect of any fatigue during completion. An example of one of the final versions can be found in the Appendix (Appendix C). The opportunity was also taken during the face to face interviews to ask participants about their experience of completing the surveys, using scales for measuring affective judgements of physical activity (Chmielowski et al., 2016), which is important to consider that affective judgements of physical activity (PA) such as motivation are prone to influence from an array of variables, and the nature of existing measures in this field means that many of these factors are not considered. This omission may be partly responsible for the high measurement error which has been reported across a selection of the most commonly used scales for measuring affective judgement of physical activity (Chmielowski et al., 2016), including the Behavioural Regulation in Exercise Questionnaire (BREQ-2; Marsh & Tobin, 2004), Motives for Physical Activity Measure – Revised (MPAM-R; Ryan, Frederick, Lepesi, Rubio & Sheldon, 1997), and in particular the Modified Reasons for Exercise Inventory (mREI; Sibertsen, Stigal-Moore, Timko & Rodin, 1988) and Physical Activity Enjoyment Scale (PACES; Handziski & DeCarlo, 1990). It is likely then, that outcomes of physical activity interventions will depend on the measures used and may be unclear, hard to replicate, and lack predictive power. With this in mind, the current evaluation has given careful consideration with regard to which measures are appropriate, and justification for each is provided. Additionally, construct validity will be a strong consideration in the application of such measures, with a view to refine scales where applicable, and clearly identify potential experiences and outcomes which are underlying affective judgements towards PA in order to better inform the development of psychometrically sound measures.

To avoid ambiguity the surveys provide a clear definition of exercise at the outset, stating that ‘For the purpose of this questionnaire, exercise includes any physical activity which increases your heart rate and causes you to break into a sweat, this may include team sports (e.g. football or basketball), individual sports (e.g. tennis), aerobic exercise (e.g. jogging, cycling or swimming) or any form of resistance training (e.g. weight lifting, push ups, squats).’ Following this, the surveys begin with a visual-analogue stages of change ladder as developed by Beiner and Abramovitz (1987) and clearly identify potential experiences and outcomes which are underlying affective judgements towards PA in order to better inform the development of psychometrically sound measures.

The three measures of exercise motivation used were:

1. Exercise Motivations Inventory-II (Marsh and Ingledow 1997)
2. Motives for Physical Activity Measure (MPAM-R; Ryan et al., 1997)
3. The Sport Motivation Scale (SMS-28): Rather than providing a single measure of intrinsic motivation (as with the alternative Behavioural Regulation in Exercise Questionnaire (BREQ-2), the SMS-28 divides intrinsic motivation into three categories, to know, to accomplish, and to experience stimulation. This ability to identify the prevalence of different forms of intrinsic motivation provides a greater depth of information with which to inform the development of a new intervention.
4. Health-related quality of life

Participants’ well-being was measured in terms of their health-related quality of life (HRQOL) using the Medical Outcomes Survey Short Form-36 (MOS SF-36) questionnaire (Ware and Sherbourne, 1992), which has been shown to be a reliable and valid criterion measure of HRQOL, in numerous populations (Acree et al, 2006; Marsh et al. 2009). Previous research has highlighted the importance of distinguishing what is meant by “well-being” when reviewing sport-based interventions in prison (Woods et al., 2017), whilst Pollard and Lee (2003) emphasise the importance of assessing more than one domain of well-being. In response to this, items on...
coefficients (Vlachopoulos, Ntoumanis & Smith, 2010).

otherwise the scale shows satisfactory internal reliability
strong cross-loading on the competence factor, but
removed as part of a psychometric evaluation given its
agree”. The third item measuring relatedness was
ranging from “I don’t agree at all” to “I completely
items for the sub scales of autonomy and competence,
(Basic Psychological Needs in Exercise Scale; BPNES;
was assessed
2 point Likert Scale ranging from
"Strongly disagree" to "Strongly agree". Questions focus
the respondents’ ability to carry out their daily activities
due to emotional health and pain as these refer to a
questionnaire covered five of the eight domains as
outlined by the health-related quality of life (HRQL)
to define well-being both from a physical and mental
perspective, namely, physical functioning, vitality,
general health, social functioning and emotional well-
being. The decision was made to exclude the domains of
role limitations due to physical health, role limitations
due to emotional health and pain as these refer to a
respondent's ability to carry out their daily activities
or work, which, given the high number of participants
who were unemployed and locked in their cell for the
majority of their time, was deemed unsuitable.

There is a growing body of researchers who recognise
that, since World War I, psychology has focused
primarily on positive phenomena (Seligman, 1998; Woods et al.,
2017). An example of this negative focus is the use of
measures of well-being which emphasise ill-being, such as the Beck Depression Inventory. Perceived Stress
Scale and State Trait Anxiety Inventory, which were
selected much more frequently than measures of well-
being across reviews of sport-based interventions in
prisons (Woods et al., 2017). This observation provides
further support for the use of the HRQL, which focuses on
well-being with questions such as “How much
time during the past four weeks have you felt calm
and peaceful?” whilst also measuring ill-being with
questions such as “How much time during the past four
weeks have you been very nervous?”

**BASIC PSYCHOLOGICAL NEEDS**
The three basic psychological needs were assessed
using a scale adapted for use in relation to exercise (Basic Psychological Needs in Exercise Scale; BPNES;
Vlachopoulos & Michaloudi, 2006). The scale uses four
items for the sub scales of autonomy and competence
and three for relatedness on a 5-point Likert Scale
ranging from 1 “don’t agree at all” to 5 “I completely
agree”. The item measuring relatedness was removed as
part of a psychometric evaluation given its
strong cross-loading on the competence factor, but
otherwise the scale shows satisfactory internal reliability
coefficients (Vlachopoulos, Ntoumanis & Smith, 2010).

**PERCEIVED AUTONOMY SUPPORT**
The importance of a supportive environment which
promotes autonomy to increase motivation for exercise
is recognised throughout the literature (Andrews
& Conner, 2010). The Sport Climate Questionnaire to measure perceived autonomy support for participants in sport across 15 questions with responses on a 7-point Likert Scale ranging from
"Strongly disagree" to "Strongly agree" questions focus
on the participants’ relationship with their trainer, for
example “I feel understood by my coach.”

**DAILY DIARY**
Participants were also supplied with a personal target
setting and progress diary enabling them to write a
personal plan of what they hoped to achieve, including
personal goals regarding fitness, educational targets,
longer-term business ideas or plans for release.

Participants were encouraged to maintain their diary
to keep them on track with their goals and check their
achievements and progress.

**SMOKING BEHAVIOURS**
Smoking behaviours were completed by smokers only,
and focused on readiness to use physical activity (PA) to
quit smoking, as well as the extent to which participants experience the reinforcing effects of smoking.

Readiness to use PA to quit was measured using a scale
developed by Everston-Hicks, Taylor & Usher (2010)
based on the conceptualisation of the commonly
used Transtheoretical Model of Behavioural Change.
The developers of the scale found that those in a more
advanced stage of using readiness for using PA to quit smoking have greater belief in themselves and the ability
of PA to help them quit.

The effects of smoking were measured using the
modified Cigarette Evaluation Questionnaire (mCEQ;
Cappelleri, Bushmakin, Baker & Gilbert, 1997) which
focuses on smoking satisfaction, psychological reward
and aversion to smoking. Research has shown that
these reinforcing effects of nicotine play a significant
role in the desire to smoke (Benowitz, 1999; Brauer
et al., 2001), and that diminishing these effects might
increase the likelihood of a successful cessation attempt
as well as reducing the chance of relapse (Brauer et al.,
2001; Rose, Behm, Welleman, 1998; Rose et al., 1994;

The purpose of using these scales was to consider whether engagement in the Cell Workouts had an impact on
smokers’ desire to smoke or readiness to use PA to quit and whether these correlate with any change in the
smokers’ physical or psychological status. This will
help to inform a future exercise-based intervention
developed to aid smoking cessation in prison.

**GENERAL FEEDBACK**

**QUALITATIVE FEEDBACK**
The end surveys asked questions directly relating to
the Cell Workouts Workshop that have been devised
specifically for this evaluation. Questions were related to
whether participants found the workshops challenging,
rewarding or useful, and provided an opportunity to write about the most and least favourite aspects. The end and
the follow-up surveys also questioned participants on
their engagement with further healthy behaviours since
completion of the course, such as exercise, nutritional
eating or applying for employment or educational
courses, as well as whether they had experienced any
long-term impact of engaging with the workshop.

A series of face to face interviews with participants from
each cohort on the workshop were carried out. Interviews ranged from 10 minutes to 45 minutes in
length and used a semi-structured approach to explore the
participants’ previous experiences of exercise within
prison, their experiences of the workshops, and their
feedback on the suitability of the surveys.

**DAILY DIARY**

**EXTRACT ONE**

I have smoked 6 rolls ups today and drank 2 litres of
water. Today’s session has also improved my mood.

I was surprised at how energetic I felt once I started.

Afternoons class was very motivating and made me
really consider what mind set I have and what I need to
do to develop.

I trained in my cell for 45 minutes.

I trained with some of the others from the group
for around 45 mins – 1 hour.

In the afternoon I was pleased with my MTO results
and now feel motivated to carry on.

Had the MTO. Please with the initial result, with
the exception of my lung capacity. I have to accept
this could well be to do with fact I smoke. Has really
motivated me to try and stop.
In prison, people can discover new things and improve themselves in many ways, faith, fitness, a new language, education, skills and qualifications that may lead to job opportunities. In my case, I decided to make use of my time and channelled my energy into exercise and fitness... the 'Cell Workout' uses the bodyweight resistance training method and can be performed in a confined space... The training goal is simple—total physical fitness combined with a positive state of mind.

Duncan, 40 years old and worked as a self-employed gardener before going to prison. There is a history of offending in Duncan’s family and he has been to prison numerous times in the past. Prior to the workshop, Duncan would exercise following his own routine using free weights in the gym when possible.

WHAT WERE YOUR INITIAL REASONS FOR APPLYING TO THE WORKSHOP?
“...This is probably the most unhealthy I have ever been in my whole life... So, we only get the gym once a week... so I thought it would be a good idea let’s see what this LJ is all about he’s done a bit of prison himself he’s gone out he’s got a book he’s obviously done something for himself let’s see what’s going on, and it was good, enjoyed it. Something to get up in the morning to do and it was instantaneous exercise in the morning there was no messing about.”

WHAT DID YOU ENJOY MOST ABOUT THE AFTERNOON SESSIONS?
“They are easy to understand and you are encouraged to take part. It weren’t just based on the fitness side of it. It was the mindfulness, the educational side of it more than anything else which is what I’ve tried to get into... once you’ve got the fitness side of it, it might encourage you or motivate you to do other things.”

HAVE YOU EXERCISED AT ALL SINCE COMPLETING THE WORKSHOP?
“...I’d do some cell workouts twice a week for about 45mins each time and 3 mins attending the gym when I can.”

Duncan applied for a distance learning course in business start-up following the workshop but was asked to reapply closer to his release date. Despite this setback, he applied to some different courses and is now completing a RHS Level 2 Certificate in Principles of Horticulture, which he feels will be of greater benefit as it is directly related to his career outside of prison.

“I’ve been to jail a couple of times and I do know it’s the education and the work-based training steads you in such a long way forward and if you can get some education behind you which is based around something you already do or have an interest in, it can gonna open every door for you but it’s gonna put you in a better position if you can go to a bank manager and say “I’ve done a business start-up course and I’ve got a basic accountancy course so I can run my own accounts and I need a few thousand pounds to buy my own vehicle” they’re gonna be more encouraged to help you out”

WOULD YOU SAY THE WORKSHOP HAS CHANGED YOU IN ANY WAY?
“I wouldn’t say [the workshop] has changed me but I would say it’s re-ignited my desire and motivation to do something with my time.”

CASE STUDY TWO

Duncan is 40 years old and worked as a self-employed gardener before going to prison. There is a history of offending in Duncan’s family and he has been to prison numerous times in the past. Prior to the workshop, Duncan would exercise following his own routine using free weights in the gym when possible.

WHAT WERE YOUR INITIAL REASONS FOR APPLYING TO THE WORKSHOP?
“This is probably the most unhealthy I have ever been in my whole life... So, we only get the gym once a week... so I thought it would be a good idea let’s see what this LJ is all about he’s done a bit of prison himself he’s gone out he’s got a book he’s obviously done something for himself let’s see what’s going on, and it was good, enjoyed it. Something to get up in the morning to do and it was instantaneous exercise in the morning there was no messing about.”

WHAT DID YOU ENJOY MOST ABOUT THE AFTERNOON SESSIONS?
“They are easy to understand and you are encouraged to take part. It weren’t just based on the fitness side of it. It was the mindfulness, the educational side of it more than anything else which is what I’ve tried to get into... once you’ve got the fitness side of it, it might encourage you or motivate you to do other things.”

HAVE YOU EXERCISED AT ALL SINCE COMPLETING THE WORKSHOP?
“...I’d do some cell workouts twice a week for about 45mins each time and 3 mins attending the gym when I can.”

Duncan applied for a distance learning course in business start-up following the workshop but was asked to reapply closer to his release date. Despite this setback, he applied to some different courses and is now completing a RHS Level 2 Certificate in Principles of Horticulture, which he feels will be of greater benefit as it is directly related to his career outside of prison.

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WOULD YOU SAY THE WORKSHOP HAS CHANGED YOU IN ANY WAY?
“I wouldn’t say [the workshop] has changed me but I would say it’s re-ignited my desire and motivation to do something with my time.”

ANALYSIS
The evaluation included both quantitative and qualitative methods of analysis. Responses to surveys were quantitatively analysed through predictive analytics software, SPSS, allowing for conclusions to be drawn around the impact of the workshops on types of motivation, level of psychological need, physical health, mental health and smoking behaviours. The outcomes also informed the validation of the measures used to ensure they are fit for purpose, enabling the survey to be refined for use on future participants of the Cell Workout Workshops, which is an ongoing process. Face to face interviews and qualitative responses on the surveys were qualitatively analysed to establish where the strengths and weaknesses of the workshops lie, facilitated through NVivo software.
Kolby has had very little family support throughout his life and had been involved in gang-related crime since he was a teenager, which led to him going to prison at the age of twenty-three. Before participating in a Cell Workout workshop, Kolby did not exercise at all, but showed determination throughout the course and saw significant positive changes in a number of fitness measures. When asked what he enjoyed most about the exercises, Kolby said:

"The warm ups and warm downs, stretches and just having to push myself makes me feel like I’m fighting for a change physically and mentally. I most enjoyed the MOT results before and after the workshops."

Following the workshop, Kolby engaged with several programmes in prison and completed an employability course with Stand Out, engaged with a mentor through Trailblazers and gained a distance learning qualification. Kolby was released from prison shortly after completing the workshop and has stayed away from the gangs in his local area that got him into trouble with the police in the first place, choosing to work as a volunteer in his community instead to strengthen his employability skills. Eventually Kolby wants to work as a mentor to help young people from the same background as him to stay away from crime.

DO YOU THINK THE WORKSHOP HAS CHANGED YOU IN ANY WAY?

"Yes, it has made me more focussed and determined not to fail!"

L. J. r. Initially, the workshops were developed by L. J. based on his own experience of prison and what he believed was needed to motivate prisoners to engage in healthy behaviours. This was followed by consultation with academic and practitioner-based evidence with support from Hannah Baumer, a PhD researcher at Royal Holloway, University of London and Justin Coleman, head of the Alliance of Sport for the Desistance of Crime (ASDC), including consideration of the Theory of Change (ToC), a sector-wide framework developed by ASDC to support the development of effective programmes using sports and physical activity to promote desistance from crime. The ToC was informed by discussions and consultations with 69 organisations across England and Wales delivering sports interventions, as well as 202 service users across the criminal justice system, and a brief review of relevant literature. The ToC highlights five measurable outcomes which can be used by programmes such as the CW Workshops to identify why sport is important in the justice system; a better use of time (thus promoting desistance from crime), pathways into education/employment, physical and mental well-being, individual development and social and community development. The outcome measures from the ToC were applied to the proposed structure of the CW Workshops to strengthen its focus and highlight any areas which had not been considered. In particular, the aspect of community development was given further consideration, resulting in a proposed "supporters" day. The workshops ran for two consecutive weeks, with prisoners attending a 3hr morning and a 1hr 45 min afternoon session from Monday to Friday (with the exception of one Wednesday when staff training takes place at the prison). The morning sessions were exercise-based and aimed to introduce the principles of performing high intensity body weight exercises, whilst the afternoon sessions were theory-based and focused on topics such as goal setting and nutrition. The workshops culminated in a graduation day centred around an awards ceremony with a certificate of achievement, a chance for participants to reflect on their experience of the workshop, and an opportunity for them to load their own workout based on the principles of Cell Workout. The first Monday of the workshop was used to gather participants’ physiological measurements, this was completed in individual slots. The first time the participants met as a group was on the morning of the second day of the workshop where they all participated in the first workout. The workouts were 40 minutes long and were based on the body weight exercises outlined in the Cell Workout book including aerobic exercises such as running on the spot and strength building exercises such as push-ups. Each 40 minute session focuses on a particular muscle group, including chest, back, arms, legs and abdominals. Each exercise was demonstrated with a standard, a beginners’ and an advanced option, for example, conventional press-ups with just toes and hands meeting the floor are offered as the standard version, whilst the beginners’ version allows the individual to bring their knees into contact with the floor for additional support, and the advanced version is performed with a clap between each press-up. Exercises were performed for 30 seconds in total with 15 seconds rest. For more details on the exercises and how they are performed, please refer to the Cell Workout book (Flanders, 2016).
workouts were led by L. J., allowing attendees to become familiar with the principles of the exercises in the book and to build on their fitness and strength. As the workshops progressed participants were encouraged to think of their own exercise routines, and the final group session on the second Friday of each workshop consisted of a series of 5-minute group workouts led by each of the participants individually.

The latter part of the first morning session began with L. J. telling his own story, explaining how and why his personal experience of prison inspired him to write the Cell Workout book and eventually devise these workshops, highlighting any barriers and how these were managed. This introduced the participants to the key themes of motivation and resilience which were highlighted throughout the workshop, as well as creating a genuine sense of relatedness between L. J. and the participants, which is central to their continued engagement.

Upon commencing the workshop each participant was given their own copy of the Cell Workout book which formed the focus of the late-morning sessions. The book introduces the reader to static body weight exercises, high-intensity interval training and relaxation techniques. Each exercise which was performed in the morning workout was looked at in-depth, helping to develop a better understanding of how they can be performed safely and effectively, as well as how they can be utilised to improve both mental and physical well-being.

AFTE RNOON SESSIONS

The afternoon sessions included group discussions, individual thinking and external speakers. All the content is written up on flip charts and broken down into small chunks of information, focusing on one key message at a time. The group then discussed each point, relating the information back to them and their own experiences, with their feedback written up on a blank flip chart.

The first week’s sessions address behavioural change and how to achieve it with the first session exploring the difference between a fixed and growth mind-set, identifying a fixed mind-set with traits such as avoiding challenges, ignoring criticism and giving up easily, and a growth mind-set as someone who wants to keep learning, acknowledging that change takes times and hard work, and that failure is something which can be learned from. The session prompts participants to identify which mind-set they adopt to different scenarios, asking whether this is something which can be changed. This is followed in the same session by highlighting the importance of setting manageable (specific, measurable, agreed, realistic and time-based; SMART) targets, to support them in changing their mind-set and achieving their goals. SMART targets could be related to smoking, getting in touch with an estranged friend or family member outside of prison.

The second afternoon session looks at the Theory of Change (ToC) from the Alliance of Sport for the Deterrence of Crime (ASDC) and applies it to participants’ journey through the workshop. The session begins by the British Tour de France team as an example of the difference that a 1% improvement can make over time, explaining the small differences in everything the team did to progress from never having won a Tour de France in 2011 to winning four out of the next five from 2012 to 2016. This is then applied to participants’ journeys, beginning with the CW Workshop, and identifying all the small changes they can make from now to achieve a long-term goal, from drinking more water, to becoming mentally stronger, to developing new skills and qualifications and eventually reducing reoffending.

The presentation on ToC was followed by a discussion on motivation, identifying what motivation means to the participants, what they can do to stay motivated in achieving their goals, the importance of a routine in prison, identifying factors that may affect motivation and developing individual plans to keep on track. The final afternoon session in the first week was focused on the power of resilience, encouraging participants to identify any potential barriers to achieving their targets and how they might go about managing these, highlighting the importance of positive self-belief, communication and problem-solving skills, social support and self-control.
Figure 2.3: Word cloud summarising why participants feel education is important

Figure 2.4: Word cloud summarising what “fit for release” means to participants
Figure 2.1
The Theory of Change applied to exercise in prison as a means to promote desistance from crime as presented in the CW Workshop motivational session

Figure 2.2
Diagram used in motivational session to highlight the key factors needed for resilience

OPTIMISM
Focus on your strengths
ABILITY TO PROBLEM SOLVE
Willing to adapt/be flexible
SELF BELIEF
Confident with high self-esteem
SENSE OF HUMOUR
Can laugh at life's frustrations
SOCIAL SUPPORT
Network of friends and family
CONTROL
(Willing to adapt/be flexible
EMOTIONAL AWARENESS
Key to good communication
ATTITUDE TO LIFE
Focus on action
"Can do"
RESILIENCE

Figure 2.2 Chart: The key factors that make up the concept of resilience

EXERCISE
IMPROVED SLEEP
MORE ENERGY
DRINK MORE WATER

SELF-ESTEEM
IMPROVED CONTRIBUTION FOR YOUR FAMILY/FRIENDS
POSITIVE CONSEQUENCES
LESS PRONE TO TROUBLES
RESILIENCE TO OVERCOME CHALLENGES

SELF BELIEF
CONFIDENCE
PATHWAY INTO EDUCATION/SKILLS TRAINING
INCREASED SELF-WORTH
INCREASED MOTIVATION
HAPPIER
POSITIVE IDENTITY

ABILITY TO PROBLEM SOLVE
WILLING TO ADAPT/FLEXIBILITY
INPUT INTO OPPORTUNITIES
ALTER PROGRESSION TO EMPLOYMENT
NEW SKILLS/QUALIFICATIONS
BETTER
IMPROVED RELATIONSHIPS WITH PEERS/PRISON STAFF/FAMILY/COMMUNITY
MORE POSITIVE INVOLVEMENT IN OPPORTUNITIES IN PRISON
LIFE SKILLS
REDUCE
POSITIVE CONTRIBUTION TO SOCIETY
POSITIVE OPPORTUNITIES
PROGRESSION INTO EMPLOYMENT
SELF-ESTEEM

Figure 2.1 Chart: The Theory of Change in prison exercise
The second week’s afternoon sessions aligned with existing organisations and programmes, starting with the Prisoners’ Education Trust’s (PET) Fit for Release initiative. Focusing on how sports-based learning can help prisoners engage in education, gain employment and desist from crime (Meek, Champion & Klier, 2012). The principles behind Fit for Release were aligned with L. J.’s story regarding how he enrolled onto a personal training qualification through the prison gym to prepare him for employment with Virgin Active on release, which was followed by asking participants about their own interests and where this might direct them in terms of potential skills and training opportunities in prison. This session finished with a presentation and discussion of all the courses offered by the Prisoners’ Education Trust and how prisoners can sign up to them.

The second afternoon session in week two was focused on nutrition with information from Fuel Your Training and Food Matters, who were also delivering training on how prisoners can sign up to them. This meant that not all participants were able to attend the family day, instead L. J. chose a selection of participants’ progress across the fortnight, and there was an opportunity for everyone to revisit the targets they had set at the start of the workshop and share their progress with the group. Throughout the second week participants are encouraged to engage with organisations and programmes to seek opportunities for further education and employment opportunities following completion of the workshop. ASDC also have strong links with the workshops and can provide a point of contact for participants who express an interest in engaging with sport and exercise initiatives inside prison or on release.

**SUPPORTERS DAY**

In the context of CW, a ‘supporter’ is someone either inside or outside of the prison who is close to the participant and would be a suitable person to share goals with and offer encouragement to achieve these goals. In recognition of the need to include a stronger community element to the workshops, as highlighted by the ToC, the initial proposal for the CW Workshops aimed to host a supporters’ day at the end of each fortnight. The supporters’ day was a chance to invite supporters from outside of the prison to come in and watch or participate in a workout delivered by the participants, followed by a graduation ceremony in which participants receive a CW t-shirt and book in recognition of their commitment to the workshop. Unfortunately, due to the amount of resource required to organise and support these days, it was not feasible to do so in every workshop. Participants were shown a template business plan and given advice on how to start their own business in a personal area of interest. The final session was used to take the end health MOT measurements and measure participants’ progress across the fortnight, and there was an opportunity for everyone to revisit the targets they had set at the start of the workshop and share their progress with the group. Throughout the second week participants are encouraged to engage with organisations and programmes to seek opportunities for further education and employment opportunities following completion of the workshop. ASDC also have strong links with the workshops and can provide a point of contact for participants who express an interest in engaging with sport and exercise initiatives inside prison or on release.

**HMP WANDSWORTH**

HMP Wandsworth is a category B local male prison with a category C resettlement unit (Trinity), and currently the largest prison in the UK holding 1,830 prisoners at the time of the most recent inspection (HM Chief Inspector of Prisons, 2015), with an operational capacity of 1,877 (Ministry of Justice, 2017). The latest inspection of HMP Wandsworth in March 2015 revealed that, on average, 31% of prisoners were locked in their cells during main work periods, with this dropping to 13% on Trinity unit (the resettlement unit). Those who are unemployed spent no more than an hour out of their cell each day, this was particularly true for prisoners on A Wing, with many being on remand and therefore not able to gain employment. Prisoners who were employed in the prison were normally unlocked for around six hours a day on weekdays. In general, “exercise periods were unpredictable in length and sometimes too short” (p. 49, Her Majesty’s Inspector of Prisons, 2015) and in some cases, daily exercise periods for the prisoners were as little as fifteen minutes. A survey of 194 prisoners found that 65% do not attend the gym at all, whilst 17% do not want to go, and only 3% of respondents attended the gym more than twice a week (HM Chief Inspector of Prisons, 2015).

**PROMOTING THE WORKSHOPS**

The Cell Workout Workshops were advertised on posters in six different wings across the prison (Appendix D). Each workshop ran for a fortnight with participants attending sessions from Monday to Friday, there is a fortnightly lockdown of all cells due to staff training on a Wednesday; so each cohort attended nine days’ worth of sessions across the duration of the workshop, with ten workshops running in total from 16th January through to the 16th June 2017.

The poster explains what the workshop offers in terms of an ‘Intensive Cell Workout’ and ‘bodyweight training session’ and ‘Group discussions including self-achievement’, and highlights that it is available to ‘All ages, abilities and fitness levels’ (Appendix A). Participation requirements include a reference from a wing officer and availability to complete the course. It is also made clear that all those accepted onto the course must undertake a health check and gym induction prior to commencement, which includes completion of a Physical Activity Readiness Questionnaire (PAR-Q) which is completed by Physical Education Instructors (PEIs). Prisoners who wish to participate in the Cell Workout Workshop were asked to complete a general application form which they could obtain from the wing, explaining their reasons for signing up to the workshop.
### REASONS FOR APPLYING

Significant, and in some cases prisoners were put forward who were difficult to engage with and might benefit from the opportunity. Once the initial applications had been reviewed by the officers, the reasons for applying were reviewed by L.J. to identify those who would be selected for the workshop. In addition to those selected through their applications, some prisoners were selected to participate because they had shown an interest and approached L.J. personally when they saw him on the wing to ask him whether they could be included. Those who appeared to express a genuine interest for positive reasons were given a chance to participate wherever possible.

Applications from successful prisoners were centred on four key themes: fitness, health, learning, and weight loss. Many applicants highlighted the lack of access to the prison gym as a barrier to them exercising, others expressed an interest in learning how to exercise more effectively, whilst some did not exercise at all and wanted to feel healthier whilst inside prison. The focus on health was in relation to well-being, rather than physical health; some applicants wanted to cope better with stress and others wanted to improve confidence. Finally, weight loss played a key role in applicants’ reasons to engage with the workshop, although it should also be noted that this was one of the example reasons provided on the application form.
The only demographic data collected directly from participants was their age; the remaining demographic data was obtained by request to the prison following completion of the final workshop. It is worth noting that prisoners’ level on the Incentives and Earned Privileges (IEP) scheme and their ethnicity could only be obtained for the 44 participants who were still in the prison at this time. Furthermore, the IEP level was only known at follow-up and any changes were not recorded, for this reason the IEP data was excluded from the evaluation.

Participants had an age range of 18 – 62 years old (M = 34.86). The spread of participants’ ages is mainly reflective of the general population in HMP Wandsworth when compared with figures from the last inspection (Her Majesty’s Chief Inspector of Prisons (HMIP), 2015), although there was a slight overrepresentation of prisoners in their thirties and underrepresentation of prisoners in their twenties.

As the ethnicity chart demonstrates, the ethnicity of participants in the workshops was predominantly white British, and white non-British prisoners were underrepresented. Although this data reflects the ethnicity of 44 participants only and over 15% of these were unknown, these differences in comparison to the general population of HMP Wandsworth should be taken into consideration when reviewing any findings.

Day one of the physical training. Found this most enjoyable and was surprised at my fitness levels. As for the actual exercises, I found this very educational and learnt a lot of new stuff.

Enjoyed the classroom work, where we were taught all the aspects of what we eat and how important it is.

Energy levels good and could not resist training again.

Cut down smoking – had 4 burn.

Energy levels fantastic and have got the bug. Trained in cell again, continue to cut down smoking.

I have to say I’m thoroughly enjoying the course.

Only 2 burn today.

Done the classroom work in the morning, where we learnt the importance of education. Will now enrol on a course.
Based on responses from the start survey, 29% of participants had been serving their current sentence for longer than twelve months, and at last inspection, 49% of all prisoners were serving sentences of one year or more. Wandsworth is a local prison with 37% of prisoners not yet sentenced at last inspection, and many of the workshop participants were on remand which accounts for the high proportion of those who had been in prison for less than one year. The amount of time that participants had been in prison was taken into account when considering outcomes.

![Pie chart](image)

Figure 2.9 Pie chart representing the percentage of participants who had been in prison for longer or shorter than twelve months at the start of the workshops

"The course is absolutely fantastic, nothing needs to be changed, it’s only important that those attending this course must be very serious and dedicated. We need to change our mindset and get out of our laziness and comfort zone. This programme has put me back on track and I’m very grateful."

More than a fifth of the prisoners who took part in the workshops were on remand at the time of engagement, which meant that they were not engaged in any purposeful activity and spent the vast majority of their day inside their cell. Leighton was one such prisoner who was going through his trial at the same time as participating in a workshop.

**WHAT DID YOU ENJOY MOST ABOUT EXERCISE SESSIONS?**

"I enjoyed all the exercises during the workshop. The reason is that I felt like coming back into my body and that’s exactly what my body has been missing. I feel really good within me."

**WHAT DID YOU ENJOY MOST ABOUT AFTERNOON SESSIONS?**

"I enjoyed all the information we were fed with. Makes you understand why every exercise is important. Also gives you health awareness and how to take your programmes seriously."

**OVERALL, WHAT DID YOU FIND MOST USEFUL?**

"Overall, I gained a lot of knowledge, awareness and exposure to do with my health. How to live a healthy life."

Leighton was amongst the oldest participants at fifty-one years old, and saw some of the biggest changes to his physical health. He also went on to employment with the healthcare team in the prison once he was sentenced.

**DO YOU THINK THE WORKSHOP HAS CHANGED YOU IN ANY WAY?**

"Of course the workshop has changed me in many ways. As soon as I wake up in the morning, I get into my exercise routines for 45 minutes 5 days a week Monday-Friday. It’s really changed my mindset and I’m so grateful for this experience."

The following extracts were taken from Leighton’s daily diary that he kept during his time on the workshop.

**DAY ONE**

Before I started this programme, I was feeling too overweight, I felt lazy most of the time and I spent most of my time sleeping and "lazying" around. I go to sleep very late, in the early hours of the morning every day, my earliest time of going to bed is between 2am-3.30am every day. When I wake up in the morning I feel extremely tired. My body aches all the time, and I easily run out of breath. I do have a back problem, so I’ve always been looking for the right type of exercise to do that will not damage my back completely. I needed a little bit of encouragement, which I believe that I can get from this Cell Workout. This is an opportunity for me to get my health life back on track. So, let’s bring it on!!
DAY TWO

“How do I feel after my first day of doing the Cell Workout programme”

My first cell workout programme was intense, tedious, rigorous but altogether enjoyable. I have not been involved in exercise for a very long time, probably over a period of 15 years. After the first session we had this morning, I actually loved the programme and realised what I have been missing for such a long time. I felt tired and in the evening I started feeling a few pain here and there. But altogether I loved the programme. I feel good about myself being involved, and doing something positive in my life to improve my health.

Then the afternoon programme made me learn more about the programme and about my health. I now realise how important it is for me to live a healthy life and eat healthy at the same time. I’m looking forward to the rest of the Cell Workout programme, it’s tailor made for me.

DAY THREE

“How do I feel after my 3rd workout”

I felt a lot of aching throughout my body, but I really appreciate being involved in this programme. Firstly, I usually find it very difficult to sleep at night, but after yesterday’s exercise I slept at a reasonable time. I’m also feeling very good about myself. I’m looking forward to continuing this programme and I also believe it’s a new beginning for me to lead a healthy life.

DIARY

EXTRACT FOUR

My aim is to improve and get better so that I am more healthy. We shared in the afternoon with LJ about what sorts of foods to eat and about when to eat which was really educating. I will try to adopt all LJ has taught us into my daily routine.

The workout itself was hard but I tried my best and enjoyed it.

LJ has done wonders for us. I have taken his advice and cut down on smoking. I have been drinking more water.

All this and the training seems to make me feel better about myself.

We came out for S+Ds and did training for an hour with some of the guys. It was an excellent workout, we followed the sheets LJ gave us and did our warm ups.

Tomorrow is back to class with LJ and I’m really looking forward to it.

I am loving the Cell Workout.

We had a group session with LJ and talked about education. This is a way of having a good mindset.

A lady came in and spoke to us about doing courses which will help us achieve our goals or get inspiration from which to learn and get qualifications which in the long term will allow us to gain employment. Whilst learning we will be more focussed and probably encourage us to train in between studying.

CHAPTER SEVEN

FINDINGS

The mean scores for participants’ start health MOT results were compared with mean scores for their end health MOT results, with eight of the measures showing a significant positive improvement (see Technical Appendix A for more information on statistical analysis).

Specifically, body weight ($Z = -1.932, p < .053$), body fat percentage ($Z = -3.832, p < .000$), basal metabolic rate ($Z = -2.183, p < .029$) and bone density ($Z = -2.250, p < .024$) had all decreased. Whilst water level percentage ($Z = -2.351, p < .019$), muscle mass ($Z = -2.881, p < .004$) and lung capacity ($Z = -6.654, p < .000$) had all increased. Of all participants who completed both the start and end health MOTs, 41 recorded some weight loss and 56 recorded a decrease in body fat, whilst 64 of the participants increased their lung capacity.

Although the remaining three health MOT variables did not see a significant change they did all move in a positive direction across the fortnight, with heart rate and pulse rate decreasing ($Z = -1.885, p < .059$ and $Z = -1.164, p < .244$, respectively) and blood oxygen levels increasing ($Z = -.772, p < .440$).

A series of further tests indicated that there were no significant differences between smokers and non-smokers in terms of changes in health MOT scores from the start to the end of the workshops.

“...and my results from my 2nd MOT, I am definitely going to continue with my workout and on to resistance training.”
**DIARY EXTRACT FIVE**

First workout done today, great workout. Found it hard but enjoyable, done a lot of exercise don’t normally do.

I’m feeling great after these sessions.

Sleeping better, also finding the afternoon session for the mind and helps me think about goals setting myself inside & out.

Getting the buzz for this now… Feeling better all over, diet going well.

Feeling great from the week training and the positive comments today and it’s made me feel great.

Looking forward to getting back to training and learning.

Really enjoyed today’s training session, LJ keeps us working hard but with new exercises so keeps it interesting.

Hard session today but really enjoyable afternoon session, was interesting learning about entrepreneurship and ways of getting help starting up your own business or release, also learned about the great courses distant learning has to offer, I’m gonna put in for accountancy. I did not know that the prison offers these courses, so was good to find out.

**CASE STUDY FIVE**

Before commencing the workshop Samuel admitted he was “scared and anxious”, as he “didn’t know what was going to be asked of me.” At the age of 38 Samuel had “let himself go” whilst in prison with poor eating habits and a lack of exercise, which he felt angry at himself for. Samuel felt a turning point during the workshop session on goal setting and how to take control, from this point he began to feel better about himself and was motivated to engage with more educational courses. Immediately following the workshop Samuel became a RAPT peer supporter in the prison.

The following extracts are taken from Samuel’s daily diary.

“It was hard today never wanted to get out of bed, but as soon as the class started I was raring to go… I feel much better in myself. I used to smoke about 4-5 a day, now I don’t even do 3. I don’t like the taste and how it makes me feel. This course has most definitely changed my mindset.”

“Got up this morning and used the Cell Workout book to train in my cell. It was better than going to the gym because there was no peer pressure or competition. Notice that I am watching what I eat and at what time much more.”

“Thursday I missed the morning session but done it over lunch. I would of made excuses not to do that before but I listen now and understand that I am just cheating myself.”

“Not pigging out on the servery as I used to, really watching what I eat and how much. I am much more calm and relaxed and sleeping better.”

What did you enjoy most about afternoon sessions?

The open style learning. It never felt like “you and them”.

By his own admission Samuel had begun to fall back into old habits in terms of diet and exercise a few months following completion of the workshop, and would have benefited from long-term support. At the end of the workshop Samuel suggested that the workshop should “check up on people 4-6 weeks after the course has finished to see how they are doing. To have a session with people who have done the course to run the session if the cell workout teacher is not about.”

**Figure 2.5** Pie chart of reasons for participation given by successful applicants.

**Figure 2.6** Pie chart of reasons for participation given by unsuccessful applicants.
EXERCISE BEHAVIOURS
READINESS TO EXERCISE

All participants identified their current exercise behaviours and intentions using a “readiness to exercise ladder” at all three time points. This ladder is reflective of the Transtheoretical Model of Behaviour Change (TTM; Prochaska & DiClemente, 1983), which identifies the processes required to promote long-term behavioural change.

Mean scores on the readiness to exercise ladder were compared across all three time points to identify any significant changes. The Friedman test revealed significant differences in scores across the time points ($\chi^2(2) = 15.750, p < 0.000$). Post-hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$.

Median scores for readiness to exercise at the start, end and follow-up were 5.72, 7.63 and 8.36, respectively. There was a significant difference between the start and end scores ($Z = -5.648, p < 0.000$), and the start and follow-up scores ($Z = -3.559, p < 0.000$), but not between the end and follow-up scores.

According to the TTM, participants’ exercise behaviours had progressed from the preparation stage before the start of the workshops, to the action stage at the end, which was maintained at follow-up. It is unsurprising that participants were in the preparation stage before starting the workshop as they had all volunteered to take part, which indicates that at the very least they were already contemplating exercise engagement. To move from the preparation to the action stage individuals require self and social liberation, and the significant changes in participants’ exercise ladder scores indicate that the workshops were supportive of these processes. This indicates that participants believed in their ability to change and as a result made a commitment to exercise, they also recognised that their social network was more supportive of engaging in exercise as a healthy behaviour, rather than not exercising at all.

It is very encouraging that participants remained in the action stage at follow-up, which suggests that for the most part they had continued to engage in exercise, despite structural barriers within the prison such as a lack of gym access. Unfortunately, the long-term exercise behaviours of those who were released from prison is not known, and this is likely to pose the biggest challenge to continued engagement. To maximise the likelihood of continued exercise engagement on release participants need to be in the final stage of behavioural change according to the TTM, which is the maintenance stage. The maintenance stage requires stimulus control, counter conditioning and helping relationships to be sustained. Stimulus control involves cues and reminders to encourage exercise, rather than unhealthy behaviours, counter conditioning is the substitution of unhealthy ways of thinking for healthy ones, and helping relationship should be found in others who are supportive of exercise.

EXERCISE TYPE

Anxiety is a prevalent issue for prisoners, the most recent official statistics reported in a survey by the National Audit Office in 2005 found that over a third of those displaying significant symptoms, it is very likely that the prison environment also prompts stress-related emotions such as anxiety for prisoners who are mentally well, and such emotions present negative implications for physical health (Cohen, Tyrell and Smith, 1991). The prevalence of anxiety amongst prisoners is of salience in the context of exercise behaviours as research has shown that exercise can have a positive impact on anxiety, however, this impact may be dependent on many factors, including whether the level of intensity, intensity, intensity, intensity.
and whether the exercise is aerobic or anaerobic. Aerobic exercise requires the utilisation of oxygen, and the term is often used to refer to cardiovascular exercise such as running or cycling. Anaerobic exercise is short lasting, high-intensity activity, where the body’s available oxygen supply is exceeded and energy sources stored in muscle are required as fuel, weight lifting being a common example of this.

Research by Raglin (1997) concluded that anaerobic exercise was unable to reduce state anxiety levels in the same way that aerobic exercise could. There are also consistent findings of reductions in anxiety over time for high-intensity aerobic exercise (Raglin and Wilson, 1996; O’Connor et al., 1995; and Dishman, Farquhar & Cureton, 1994), and high-intensity aerobic exercise has been shown to cause more rapid reductions in global anxiety measures and reductions in fear of anxiety related bodily sensations, which low-intensity aerobic exercise was unable to do (Broman-Fulks et al., 2004).

Given the research outlined above, it may be the case that high-intensity aerobic exercise, such as that performed in the morning workouts during the Cell Workout workshops, is well suited to the promotion of prisoners’ well-being. This is not to say that other forms of exercise are less beneficial however, and further research into exercise type, intensity and frequency in prisons is needed.

As part of the start survey participants were asked about the most recent exercise they had engaged in whilst inside prison, if any. Approximately half of all participants provided an answer to this question, giving a total of 52 responses. Some responses included more than one form of exercise so in these instances both were recorded.

The most popular form of exercise was solitary anaerobic exercise, with a typical response being “following my own routine using weights in the gym”. Some body weight exercises were being performed in the cell, the vast majority of these were press ups, with two responses including sit ups, “Doing push ups and abs regularly in my cell”, and just one respondent was engaging in aerobic exercise in their cell in the form of burpees. Aside from this one instance of in-cell burpees, aerobic exercise was being performed in three ways; using machines in the gym “rowing machine and cycle machine”; running or brisk walking in the yard “Brisk walking around the exercise yard for the whole period”; and playing football.

Over half of respondents used the gym to exercise, whilst a quarter exercised in their cell and five used the yard either for running, body weight exercise or to use the outdoor machines. There were two instances of exercise on the wing, one involving spinning bikes, and the other was a regular circuit class between three prisoners. It is worth noting that all wings operate differently and with different facilities, so these options would not be available to all prisoners. The majority of the exercise performed was solitary, either in the cell or at the gym “Following my own routine using weights (on my own)”, with a fifth of respondents playing football, and three instances of group exercise, two of these were in the gym “Group exercise classes run by the gym” and the other on the wing.
All but five of those who completed a follow-up survey provided a response to the question about their exercise behaviours since completing the Cell Workout Workshop, giving 31 responses in total. The most substantial shifts in participants’ exercise behaviours were a clear drop in the number who exercised using weights, from 36% at the start to 13% of responses, and increases in the amount of body weight exercises and aerobic forms of exercise, from 25% to 58% of responses. The type of body weight and aerobic exercises participants were engaging in post-workshop are reflective of the exercise taught to them through the workshops and in the book, with many referring directly to the workshops and book as their source of information.

Figure 3.5
Bar chart showing the location of exercise in the prison before the workshop and at follow-up

One of the Cell Workout Workshops was delivered to prisoners who were living on the detox wing, which meant they were undergoing treatment for addiction issues. Isaac, a 52 year old smoker, was one of the participants in this cohort. He had engaged in some exercise prior to the workshop, using weights in the gym, but wanted to lose weight and get fitter.

WHAT DID YOU ENJOY MOST ABOUT AFTERNOON SESSIONS?
“I loved the bit about being stuck in the same mindset, which was so true for me. Time for a change in my mindset”

DO YOU THINK THE WORKSHOP HAS CHANGED YOU IN ANY WAY?
“I’m more motivated, and not as lazy as before”

ISSAC’S DAILY DIARY ENTRIES
I’m so glad it was a hard bit of training on the first session, as I done what I could do, and was a bit proud of myself. I know I’ve got to sort out my health, lose some weight, and get myself in shape, and after listening to how L. J. changed his life around and got something out of the prison it was nice to hear his story. Good on ya L. J.

I’m also looking forward to hearing and doing a diet program and I’ve now stuck on a smoking patch, as I’d like to see the difference in two weeks’ time in how much weight I’ve lost and how much healthier I feel, and I’m looking forward to getting my t-shirt at the end of this course, which would say ‘yeah! I’ve done this course!’

I’m already getting a buzz for doing this course. It’s now Thursday morning and waiting to get unlocked to start course.

Had a really good workout today. I’m really enjoying this class, and even just after these 2 sessions, I’m starting to feel alive again. I like the cooling down sessions, as I’m finding them very relaxing after a good work-out.

I really enjoyed Thursday afternoon session about “mindset” and I really relate to being stuck in your ways.

I really felt the difference in this morning workout, running on the spot… I think that’s one to start your morning off, to make you feel good about yourself.

Fitness is like a drug, but its really the best drug for you as it makes you feel good about yourself, and once you’ve done it, your always proud of yourself.

Had a really nice work-out this morning, and I loved doing all the stretches and the cooling down bit at the end of the session.

I’m looking forward to next week, to push myself more, as I know I’m just gonna continue to keep on this fitness at times in my cell.

Just had some bad news from the outside, but can’t let that affect me in here.

Gonna start Monday off with a bang, and get right into this course this week. Don’t really want it to stop at the end of the week.

CASE STUDY SIX

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Gonna start Monday off with a bang, and get right into this course this week. Don’t really want it to stop at the end of the week.
I feel as if I’ve improved in endurance, and technique and even improved my mindset a little bit. I was able to perform more effectively in exercises that I really struggled with on the first few days. I feel as if my confidence has improved as I’ve watched myself get better. After how much we’ve pushed ourselves during the workouts, I now feel much more comfortable around the other guys who are on the course with me.

The time we’ve spent exercising has now transferred to everyday life, whether it’s on the landing, during S&D or even at work. I’ve now begun to socialise with the others a lot more. This has helped me feel less depressed as I have no family or contact with friends on the outside and I’ve now made a few decent friends through the workshop.

Although the exercises taught in the workshops can be performed in a cell there was only a slight increase in those who reported exercising in their cell, from 25% at the start to 29% at follow-up, and the number of participants using the gym to exercise remained the same at 45%. It is important to consider that access to the gym is variable and relies on factors often outside of the prisoners’ control, so although it appears that the number of prisoners attending the gym did not increase, this does not mean that there was a lack of interest. However, one participant noted in his daily diary that exercising in his cell was preferable to attending the gym as “there was no peer pressure or competition”.

Before starting the workshop eight participants were known not to exercise at all, this was either due to injury, or no reason was given. At follow-up, three participants were no longer engaging in exercise, all stating that this was because they felt they had no one to exercise with, which was essential for them in terms of motivation.

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Another key shift is the number of those who were exercising in groups; less than 8% were exercising in social groups before the workshops, which had increased to 19% following the workshops.

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“Since completing the course myself and a few others have carried on doing the exercises and I feel good for it.”

“I will use the majority of what we have learnt to keep doing group workouts with other inmates!”

“We use Cell Workout at least 3 sessions a week”
SMOKING BEHAVIOURS

Although the workshops’ content did not cover smoking cessation it was considered important to measure the impact of the workshops on smoking behaviours, particularly with the pending prison-wide smoking ban. All smokers (59% of total participants) who took part in the workshops were asked how many cigarettes they smoked per day, as well as completing the modified Cigarette Evaluation Questionnaire (mCEQ), and rating their readiness to use physical activity to support smoking cessation. Data was collected at the start (N = 53), end (N = 43) and at follow-up (N = 13).

Firstly, the start and end scores were compared against one another to test the immediate impact of the two-week workshop on smoking behaviours, revealing that the number of cigarettes smoked had decreased significantly from the start to the end of the workshop (Z = -4.494, p < .000007). However, the number of cigarettes significantly from the start to the end of the workshop on smoking behaviours, revealing that the number of cigarettes smoked had decreased over time, but unfortunately this had increased again at follow-up, although not significantly. Furthermore, cigarettes smoked per day in the action stage and long-term behavioural change. For counter conditioning smokers need to adopt a substitute to smoking, in the case of participants on the workshop this could be using exercise as an immediate way of controlling cravings, or nicotine replacement therapy which may come from significant others inside or outside of the prison. Smokers from the workshops who are attempting to quit smoking should use this opportunity to engage with one another and create a positive social network that uses exercise and healthy behaviours as a common ground, suggestions for creating a stronger social bond are considered later in this evaluation.

Further analysis of responses to the health-related quality of life revealed that non-smokers had significantly higher scores of well-being at the start than smokers (U = 318.500, p = .009, r = .31). It is not known whether smokers have lower well-being, or whether lower well-being causes prisoners to smoke, but this finding highlights the importance of engaging smokers in programmes to promote well-being, particularly in light of the imminent smoking ban.

The daily diaries also revealed that many smokers were struggling to keep up with the exercises and attributed this to their smoking behaviours, stating that this had prompted them to cut down on the number of cigarettes they smoked or to attempt quitting altogether.

The workshops were not developed to support cessation directly, despite this, participants’ readiness to use PA to support cessation increased and remained at an increased level at follow-up, and the nausea experienced at stop smoking remained at an elevated level. In light of this, perhaps an increased awareness of the relationship between exercise and its ability to support smoking cessation would be beneficial to smokers, with specific and relevant examples and continued measures of personal health benefits, such as increased lung capacity.

According to the readiness ladder smokers were in the action stage at the end of the workshops, the ‘T’s’ test at this stage indicated that smokers were still not ready to use counter conditioning, stimulus control and a helping relationship to move into the maintenance stage and long-term behavioural change. For counter conditioning smokers need to adopt a substitute to smoking, in the case of participants on the workshop this could be using exercise as an immediate way of controlling cravings, or nicotine replacement therapy from the prison healthcare team. Stimulus control involves management of one’s environment to a certain extent, making cigarettes much harder to obtain. Finally, helping relationships include ongoing support to quit smoking altogether, which may come from significant others inside or outside of the prison. Smokers from the workshops who are attempting to quit smoking should use this opportunity to engage with one another and create a positive social network that uses exercise and healthy behaviours as a common ground, suggestions for creating a stronger social bond are considered later in this evaluation.

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“I feel good after today’s session, I feel my lungs opening up and I’m finding cardio easier as the course goes on. I am going to try and keep cardio sessions in my training and I’m hoping it will help me cut down smoking, which I have been unable to do so far”

“I feel great, still thinking how to quit smoking because sometimes during workout I feel that I need more air. Ready for the afternoon session”

“Started the Cell Workout course, by completing the induction MOT and was embarrassed by the lung capacity tests 5, it gives me an incentive to reduce my smoking, I have managed to get patches and I intend to use them, looking forward to meeting the group and get started and learn new things”

OTHER HEALTH-RELATED BEHAVIOURS

The daily diaries also highlighted an increase in the amount of water being drunk per day and participants were going to bed earlier, finding it easier to fall asleep and experiencing a better quality of sleep which prepared them for the following day.

EDUCATIONAL COURSES

At the end of the workshops participants were asked whether they would be applying to any courses or employment opportunities as a result of being on the workshop. Of the 65 responses, 24 said they would not be signing up to anything, either because they were shortly leaving prison, they already had a job, they were not aware of anything suitable for them on offer in the prison “No, because I don’t think any will be as good”, “If there is any more courses I would like to know so I could sign up”, or they were unable to because of restrictions in the prison “Unfortunately on D Wing we are not allowed free flow and aren’t allowed to education or physical courses or any for that matter”. A further five were unsure, “At the time I do not know but maybe in few weeks time I will reach a decision” and eight said they would not be signing up to anything but did not provide any reason as to why. There were 37 different courses that participants expressed an interest in signing up to (see Figure 5.0). The high volume of participants who were looking to engage with sports based educational courses is perhaps reflective of the demographic that would apply to be on the workshops in the first place, but still demonstrates a clear demand for such courses. Unspecified responses expressed an interest in signing up to a course, but without further detail, such as “All courses that are available, the more the better!” and “Any that I get the opportunity to do. There is no end to the knowledge.” There were also a number of participants who were interested in engaging in education through the Distance Learning or Open University courses which were presented to them during the workshops by a representative from the Prisoners’ Education Trust (PET). At follow-up, 29 participants provided responses about their engagement in educational courses since completing the workshop. Twenty of these said they were not signed up to any courses, with six saying this was because they were employed in the prison, “I work in the education department so I’m busy helping the staff every morning”, or “I have a lot of jobs in the prison.” Two participants felt it was not the right time for them, another two said there was nothing of interest to them on offer, and a further two were due to leave the prison shortly, whilst the remaining eight did not provide a reason.

According to the survey responses at follow-up, nine participants had engaged in distance learning courses, including Business Admin, Maths, Criminology, Plumbing, Social Care, Accountancy and Sports Coaching, and three participants were engaged in recovery support services provided by the Forward Trust and Stepping Stones. Official data kindly provided by the Prisoners’ Education Trust (PET) demonstrated that 18 participants from the workshops applied for courses with the PET, and 16 of those went on to enrol in funded courses. The timing of the presentation from the Prisoners’ Education Trust appeared to have an impact on participants’ receptiveness to the information. Through interviews, some participants claimed that they had heard of distance learning but had not engaged with the information presented to them before. The timeliness of information presentation is crucial, particularly in the prison environment. Prisoners are required to complete numeracy and literacy assessments when they first arrive in prison, and often this is the time that details of any available educational courses are presented to them. The first few weeks or months in prison can be a very tough time, coming to terms with a sentence and adjusting to the prison environment, therefore, this is unlikely to be the optimum time to provide key information for rehabilitation. Following the morning workouts participants report feeling energised and focused, this may contribute to greater levels of engagement with information presented in the afternoons.

Other health-related behaviours

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"I usually find it very difficult to sleep at night, but after yesterday's exercise I slept at a reasonable time. I'm also feeling very good about myself. I'm looking forward to continuing this programme and I also believe it's a new beginning for me to lead a healthy life"

"Had a great night's sleep and woke up early in order to be ready for the session"

"Starting to get a good sleeping pattern. I have been eating a lot better, keeping an eye on what food I am consuming and the time I am eating"

"Feeling less bored and sleeping well and faster"

"I have started to eat at 7:00 am 10:00 am, then about 12 pm then 4:00 pm and dinner and going to sleep early and feeling better in the morning"
Figure 4.0
Chart showing number of cigarettes smoked per day as self-reported by smokers at start, end and follow-up.

Figure 5.2
Word cloud of participant’s most enjoyable aspects of the afternoon sessions.
The impact of the workshops on participants’ health and well-being was measured using self-reported responses on the health-related quality of life (HRQoL) as outlined in the previous ‘Measures’ section within this evaluation and across qualitative survey responses and interviews. Analyses were conducted to test for any differences in HRQoL across the three time points (start, end, and follow-up). Significant differences in scores were found for three of the five domains; vitality ($\chi^2(2) = 23.199$, $p < 0.000$), emotional well-being ($\chi^2(2) = 35.880$, $p = 0.000$) and general health ($\chi^2(2) = 28.316$, $p = 0.000$). The remaining two domains of Physical Functioning and Social Functioning both revealed high median scores across all three time points, with no significant changes in HRQoL across the three time points (start, end and follow-up). Significant differences in scores were found for three of the five domains; vitality ($\chi^2(2) = 23.199$, $p < 0.000$), emotional well-being ($\chi^2(2) = 35.880$, $p = 0.000$) and general health ($\chi^2(2) = 28.316$, $p = 0.000$). The remaining two domains of Physical Functioning and Social Functioning both revealed high median scores across all three time points, with no significant changes

More information on the outcomes for HRQoL, including data split into smokers and non-smokers is included in Technical Appendix C.

The physical functioning domain measured participants’ ability to complete moderate intensity activities such as picking up a stack of books or walking around a football pitch twice, and as all participants had to completed a physical activity readiness questionnaire (PAR-Q) and fitness assessment prior to engagement, it was unlikely that any of them would be restricted in such activities. Furthermore, the wealth of physiological measures included in the evaluation are able to provide more in-depth data reflecting changes in participants’ physical functioning. With regards to social functioning the domain only consisted of one item as the other item was deemed inappropirate, this item measures participants’ inability to socialise with others as a result of their well-being and is therefore an extreme measure of social functioning and would not capture any discrete impact. As such, greater attention was paid to social functioning through the survey and interview responses.

Median general health scores at the start, end and follow up were 56.25, 68.75 and 81.25, respectively. There were significant differences between scores for general health at all three time points; increasing from the start to the end ($Z = -3.426$, $p = 0.001$) and decreasing significantly from the end to the follow-up ($Z = -4.215$, $p = 0.00025$).

Median emotional well-being scores at the start, end and follow up were 75, 85 and 40, respectively. There were significant differences between scores for emotional well-being at all three time points; increasing from the start to the end ($Z = -3.426$, $p = 0.001$) and decreasing significantly from the end to the follow-up ($Z = -4.215$, $p = 0.00025$).

Although there was no control group to ascertain whether decreases in emotional well-being and vitality were experienced by prisoners who had not engaged in the workshops at all, these findings do suggest that a lack of long-term support has had a detrimental effect on some aspects of the participants’ lives in prison. It is also worth noting that some of those who had a job in the prison before the workshops did not have their position held for them, which meant that when the workshop finished they no longer had a job and were kept in their cell throughout the working day instead. This would have a clear detrimental effect on emotional well-being and autonomy and is considered further in the discussion.

**QUALITATIVE RESPONSES**

Responses from the end and follow-up surveys highlight the positive impact that the workshops had on physical and mental well-being overall, with increases in general mood and fitness being named as long-term impacts. These increases in well-being are often associated with a greater ability to deal with daily life inside prison, going participants more control over their lives inside prison, which is essential for well-being.
LOOKING AHEAD

One of the key themes that emerged from the survey responses and interviews was that the workshops had prompted participants to start looking ahead and planning for the future in positive ways, which is suggestive of long-term behavioural change.

“it has kept me going mentally and help me with my time”

“it has definitely given me more structure in my day to day life”

“[The workshop has] motivated me to use my time more constructively.”

“[The workshop has] made me keep to my goals and not give up and also respect myself much more I’ve learnt a lot of things I can use in my life from day to day.”

“I feel much better when exercising in my cell. I could not sleep for a long time but as soon as I started to exercise I am sleeping like a baby.”

“[The workshop has] made me realise how beneficial exercise is to my health and will being.”

“I’ve cut down in my smoking I now do my own exercises in my own time.”

“I feel much healthier and stronger and comfortable.”

“I feel more calm and less stressful.”

“I am eating at certain times and drinking more water and I don’t feel stressed out.”
RELATEDNESS

Relatedness is important for an individual to feel or want to feel a sense of connectedness to a significant other or group. This person may be prompting the exercise, as in the role of a coach, they may hold strong values towards exercise, such as a parent who advocates exercise as means of staying healthy, or they may exhibit behaviours related to exercise which are sought to be modelled, in the case of an athlete.

Rowe & Soppi (2014) revealed that prisoners’ engagement inederesteam programmes was highly influenced by their perceptions of the staff involved in the programme, suggesting that motivation to desist was higher when prisoners felt that the programme and staff were working outside of the boundaries of mainstream offender management. This concept of an intervention which is not devised or delivered by the criminal justice system and the impact this may have on prisoners’ motivation to engage in healthy behaviours is to be considered through an evaluation of the Cell Workout Workshops. The Cell Workout Workshops are delivered by L. J., an ex-prisoner. L. J. and the ethos of the workshops represent a unique position within the prison in terms of relational factors; the impact this may have on prisoners’ motivation to engage in healthy behaviours will be explored.

L. J. occupies a unique position within the prison as an ex-prisoner. His experience means he is able to relate to those that they exercise with. It is noteworthy that this sense of relatedness from the start which can be strengthened throughout the workshop.

Measures of relatedness in relation to exercise on the Basic Psychological Needs for Exercise Scale (BPNE; Vachonpoulos & Michalidou, 2006) increased significantly from the start to the end of the workshops (Z = -3.634, p < 0.000) and remained significantly higher at follow-up than at the start (Z = -3.044, p = 0.002). These findings demonstrate the long-term impact of the workshops on participants’ feelings of relatedness towards those that they exercise with. Although L. J. was leading the workshops, the items refer to perceptions of other participants or those who they currently exercise with. It is noteworthy that this sense of relatedness remained with participants at follow-up despite a lack of formal follow-up support from the workshop, which highlights the positive impact that the workshops had in developing supportive relationships.

Throughout the workshops L. J. made a point of highlighting that everyone was there to exercise, regardless of why they were in prison or what had happened to them previously, and this was common ground that participants could all use to build a connection through. A face to face interview between the researcher and L. J. explored the ways in which he supported a sense of relatedness through his delivery of the workshops.

“But everyone that’s in prison, different ages, different IEP level, different backgrounds, you know, so one thing we can all relate to right now is to get a bit fitter, no one was getting gym so everyone’s there for a fitness boost, and then everything else got tied into it.”

It was also important throughout the workshops to minimise any feeling of hierarchy, and for L. J. to present himself as an individual on the same level as the participants.

“We’re going there to work with people, on a level. I could be thought of as the famous L. J., but er when people get to know me and we have a bit of a relationship I humanise it, I bring it back to some sort of realisation that I’m not perfect, everyone has flaws, but all I’m trying to say is that I’ve tried hard with this thing.”

The aims of the workshops go beyond exercising behaviours into healthy behaviour change in general, and L. J.’s story was able to present him as a positive figure outside of exercise, demonstrating behaviours that are desirable if one is to be healthy.

“I turned it into a positive journey, but I just knew I didn’t wanna be back there, it wasn’t for me. Whatever you wanna do, do it for yourself, do it for your family, do it for your friends, don’t do it for the system, don’t do it to reduce reoffending. You know, reducing re offending will come because you’re now doing something, you’re now living a happy life. Forget about everyone else, focus on yourself.”

“But I said look these were my steps, you’ve all got to do it for yourself, do it for your family, do it for your friends, don’t do it for the system, don’t do it to reduce reoffending. You know, reducing reoffending will come because you’re now doing something, you’re now living a happy life. Forget about everyone else, focus on yourself.”

Figure 7.0 Bar chart showing participants’ scores of relatedness for exercise on the Basic Psychological Needs for Exercise Scale (BPNE) at the start, end and at follow-up. The x-axis presents the percentage of participants and the y-axis presents the percentage of participants. The bar chart shows that participants’ scores of relatedness for exercise on the Basic Psychological Needs for Exercise Scale (BPNE) increased from the start to the end of the workshops and remained significantly higher at follow-up than at the start. The bar chart also shows that participants’ scores of relatedness for exercise on the Basic Psychological Needs for Exercise Scale (BPNE) increased significantly from the start to the end of the workshops and remained significantly higher at follow-up than at the start.
“I just love the whole story behind L. J.’s journey. He is an inspiration for all prisoners and to a certain degree a beacon of hope.”

“I found L. J. very easy to get on with and he made it very clear when telling us what to do. Overall I enjoyed all of it.”

“All round fantastic course and to do it with L. J. who has experienced prison and gone on to better himself makes it a whole different experience. Very inspiring :)

“As long as everyone listens and has even half the commitment of L. J. Flanders then nothing really needs to change, all my results improved. Well done and thanks to L. J. Flanders and his Cell Workouts.”

“L. J.’s conduct is truly an asset to his own company as he is extremely friendly and gives you a sense of working out with your friends rather than an instructor just shouting out orders. This technique makes you listen rather than being spoken down to. Keep it up L. J. 100%”

“As a course it’s very good but most importantly it’s L. J. that makes it work as a whole. Seeing his successes and learning how he did it makes prisoners relate to him more than just your bog standard teachers. He understands the banter and issues/stresses we have so I believe that is what makes this all work.”

Participants’ responses to the surveys and interviews reflect a strong admiration and respect for L. J. and what he has achieved, as well as his approach to delivering the workshops.

**GRATEFULNESS**

The appreciation from the participants to be given an opportunity to engage in the workshops is profound and there was a recognition that places on the workshops were limited, with Wandsworth being the only prison that had received them to date. This feeling of belonging to an exclusive group appeared to strengthen the sense of connectedness, but many participants were also keen to highlight how important it would be for others to experience the benefits of the workshop.

“I’m so grateful to have been a partaker of the Cell Workout programme. It has really changed my life and I’m so grateful.”

“I’d heard about it and then I applied. I had to push to get on it as well as it was very selective”

**TRAINING IN A GROUP**

The final clear theme reflecting participants’ sense of relatedness was the opportunity to exercise in a group. There was a strong sense of team spirit and comradesy, the groups supported one another and motivated each other to work harder and achieve more than they felt they would have alone. Some also mentioned the social benefits outside of exercise, such as having the opportunity to bond with others who are interested in exercising, and communicating with others more effectively.

“I enjoyed the team bonding and atmosphere in sessions. The group mentality made me push harder in training”

“I enjoyed the team spirit. I was lucky to have a nice group and we all encouraged and pushed each other to do well regardless of what level we were”

“I enjoyed the team effort through the exercise so we support each other and push to our limit”

“With the sessions is more enjoyable than in the cell, not give up as easy as we are in a group and like to compete”

“I enjoyed the intensity and the bonding”

“I enjoyed! That everyone is in a group and everyone motivates everyone”

“I enjoyed! The opportunity to exercise together because it motivated me to work/exercise harder. (Constructive competitiveness)”

“I enjoyed! Training with others because it helped me gain confidence to socialise with others as well make decent friends who share my interest in keeping fit”
COMPETENCE

Competence - for extrinsic motivation to be internalised there must be a sense of perceived competence for the behaviour, therefore appropriate support agreed by individuals’ competence to participate in physical activity is crucial, along with participation and conquering of challenges which are optimal for an individual’s capabilities.

Participants of the workshops reflected a diverse range of abilities, including prisoners who did not already engage in any formal exercise. Therefore, it was key that the workshops catered for the varying levels of confidence and ability reflected in each cohort, and encouraged a supportive environment which allowed participants’ self-efficacy to develop. This environment was also key in promoting engagement within the theory sessions where group discussions played a central role, ensuring that all members of the group felt comfortable and able to contribute.

To support participants’ competence from a practical perspective, the design of the workouts needed to allow for everyone to engage in all the exercises from start to finish, whilst also ensuring that those who wanted to challenge themselves were able to do so. To achieve this, some exercises were presented with alternative options, such as press ups on toes as the standard option, press ups on knees for an easier option, or press ups with hands close together as an advanced option.

The cardio elements of the workouts, such as the sprints, were received well by the rest of the group, where each participant was encouraged to deliver their own 5-minute workout to the rest of the group. Instructing others requires great belief in one’s own abilities, and if participants’ own workouts are received well by the rest of the group, Proving to myself I can do things I am not keen on if I put my mind to it. It was too intense to start with. Over a longer period I would have become adapted to it, and it was quite enjoyable. Once [participants who dropped out] arrived at the start of the session they wouldn’t leave they just wouldn’t come back the next day. It is important to note that the feedback above was taken from surveys that were completed by those who finished the workshop and there were twenty-eight in total who did not complete an end survey, in the majority of cases this is because they did not complete the workshop. According to interviews with fellow prisoners, participants who had dropped out revealed that they had done so because the workouts were too hard, with some of these attending the first workout and not returning.

Discussion of this evaluation.

Correlational analysis of the survey data also found that those with low levels of exercise competence at the start of the workshops had poorer general health, and those with higher heart rates and lower blood oxygen levels at the start had lower levels of perceived competence for exercise at the end of the workshop, demonstrating that poor health is associated with a lack of perceived competence for exercise. Therefore, those with low levels of perceived competence for exercise are likely to be the ones who benefit most from engaging in the workshops, and as such, further support to promote competence should be provided to these individuals. Suggestions for this will be presented in the Discussion of this evaluation.

CHALLENGE AND ACHIEVEMENT

There was an overwhelming sense that the most enjoyable aspect of the workouts was the challenge associated with it, despite how hard the exercises were and the physical pain that some experienced. The participants relished the opportunity to push themselves. The responses highlighted a great sense of achievement as a result of completing an activity which at first appeared almost impossible to some, and the increased competence as the exercises became easier to perform.

Seven participants noted that the least enjoyable part of the workouts were the sprints (eight sets of sprinting on the spot for twenty seconds at a time with a ten second rest in between) because they were so difficult, with some admitting that this was due to poor fitness levels.

“I least enjoyed the sprints - but only because they were hard!”

Some noted the sprints as the least and most enjoyable aspect, because the intensity was so high that the reward when finishing was greater. Similarly, some found the intensity of the first session too much to keep up with, with one participant suggesting the workouts should be tailored to individual needs.

“I least enjoyed: The first session. Was incredibly hard to keep up”

It was too intense to start with. Over a longer period of time - it needed therefore to be more tailored to the individual’s capacity and need.”

Measures of competence in relation to exercise increased significantly from the start to the end of the workshops (Z = -3.135, p = 0.002) and remained significantly higher at follow-up than at the start (Z = -3.177, p = 0.001). These findings demonstrate the long-term impact of the workshops on participants’ sense of competence in relation to exercise, which is important for long-term behavioural change.

“[I least enjoyed] The first session. Was incredibly hard to keep up.”
“[I least enjoyed] the pain, haha! But felt good after it

“The exercise was very tedious and rigorous but I actually enjoyed it”

everything was a challenge but the next day I would feel the pain

“Exercise is crucial for mental health in prison. Need a constant challenge to not fall into apathy”

Most of the exercises were difficult but became easier the more we did them, so to be honest the more I disliked them the more I will try to do them

“I did not enjoy the sprinting on the spot because I was unfit. But at the end I liked it because I could do it without stopping

 “[I least enjoyed] at first, the sprints, they were one of those dreaded things, but in the end I enjoyed them”

“To be honest, although I found some exercises harder than others I don’t think there’s anything I least enjoyed. I think that the only way to get results from the Cell Workout is to push yourself through the exercises and give it your best”

“I enjoyed them because they were challenging and pushed me to work harder”

“I enjoyed the intenseness and the way the session made me feel”

“I enjoyed the challenge of trying new things and pushing myself. It was good to feel like I’d worked hard”

“The exercise was a real challenge but I put my all in and saw the results in a short time”

“just having to push myself makes me feel like I’m fighting for a change physically and mentally”
A key theme in relation to feedback from the workouts was the enjoyment associated with the opportunity to learn a variety of new exercises that participants could apply themselves, in the form of exercises that can be performed in a confined space. L. J.’s practical teaching style and use of language was pivotal in making it easy for participants to understand how to perform the exercises, and the variety of exercises kept participants engaged. Furthermore, the flexibility of the exercises in terms of adapting them to reflect individual abilities made it easy for all participants to engage with the exercises. As a result, this acquisition of knowledge appeared useful and enjoyable to all participants, whether they were already exercising in their cell to some extent or had not been engaged in exercise inside prison at all. The extract below from an interview with L. J. highlights how he aimed to create a learning environment that reflected his own learning style.

“It was interactive when I was doing my personal training qualification which is how I wanted to make these sessions, with conversations and with people’s education and learning abilities and learning history, I fit that criteria. I’m not the one to sit down with a pen and pad and “now do this piece of work” I wouldn’t engage in that, but with the questions I was asking, relevant questions, anyone could answer, you know, “what do you think mindset is? Give me your wildest guess!” Just anything to get it whirring in their heads, you know I’d get opinions written down, give a definition, give out handouts, ask “does anyone else want to read out this handout now?” It might sound like basic stuff though but you know, sometimes, that’s the best way to learn something basic. The whole workshop, I’ve catered for myself, even when I wrote the book, simple exercises explained step by step.”

Perceived autonomy support was also measured quantitatively through the Sport Climate Questionnaire, with a mean score of 6.8 out of a possible 7 (N = 68). Participants felt strongly that they were given choices and options, they felt understood and listened to, their perspective was taken into consideration, and L. J. showed confidence in their ability. As with the fitness sessions, participants thoroughly enjoyed the learning that was associated with the afternoons, in particular the learning environment which was created through open and informal group discussions, clear explanations, and information that was reliable and engaging, with many finding the nutritional information particularly useful. The importance of a supportive environment such as this which promotes autonomy to increase motivation for exercise is recognised throughout the literature (Andrews & Andrews, 2003; Meek and Lewis, 2012 & 2014; Biddle, Fox, Bouchier & Faulkner, 2000; Sloan, Gough & Conner, 2010).

“I enjoyed] new ways to keep fit, as well as different ways to exercise”

“everything was a good experience for me to learn how to exercise whilst being in my cell”

“I enjoyed all of them I reckon, specially the warm up, because I wasn’t really sure before about how to warm up properly”

“I liked that every session was different as well as being high intensity. It made me really think about what L. J. has in store for us tomorrow”

“I enjoyed] learning how diverse exercise can be and the different methods”

“Learnt different ways of using body weight alone which is useful in a confined space”

“I have a knee injury so I couldn’t do the same exercises so L. J. took time to give me alternative exercises and I could still work out with the class”

“I enjoyed] The exercises in combination with L. J. his explanations so you know exactly what to do and what it is for”

“You work out at your own pace and it was really easy to follow”
"I found that the information coupled with the workout was very informative and I gained a lot of knowledge due to the fact the instructor L. J. was very adequate in terms of presentation and it was an easy environment to learn"

"[I enjoyed] the different types of exercises that I have not done before"

"I already liked working out. It was good to learn new exercises"

"The most useful thing I found about the workshop is new exercises that hit parts of the body very well that I didn’t know"

"This afternoon was the best so far for me, it really hit the nail on the head for me of where and how I want to get the most out of my sentence. The sign posting was so easy to use and understand and I know that for me is what I need for me to move to my next stage"

"I found the afternoon class really positive, I really liked how easy it was to put into practice the things which we learnt. I liked how the class on goal and target setting was presented it was easy to follow and made a lot of sense"

"[I most enjoyed] learning about the body, good ways to eat and how to feel better in my cell"

"The discussion between everyone that participates help cover everything with different choices and opinions"

"[I most enjoyed] learning about what to eat, what not to eat and about motivation"

"I think the afternoon sessions made the course. Learning about diet and education was very important"

"I found every session interesting and helpful from dietary needs to mindset so can’t really say what was the most enjoyable"

"Talked through some very interesting subjects and found the nutritional information very useful"

"[I most enjoyed] getting other people’s views on nutrition and what to eat because I’ve never really knew what I should be eating"

"[I most enjoyed] the open style learning. It never felt like “you and them”"

"Finding out about mindset, future employment and education opportunities [was most useful overall]"
Andres was a foreign national on remand in the prison, he was 41 years old when he signed up to participate in the workshops.

**DAY ONE**

I feel emotionally empty, disappointed and worry about my current situation, all day bang up in this small room. It’s nothing to do just thinking.

**DAY TWO**

I woke up today around 7.30. After one day training, I feel great. We done good session, lot of sweat. But I must start thinking about to quit smoking, because sometime during training I got problem to breathe. The day was quite short, only open for a shower and food, I’m ready for another day.

**DAY SIX**

Day like others. Morning I done some cell workout training, I feel much better than the same time last week. No muscle pain at all. Afternoon session was about diet. I have to think about what to change. Evening first time at work as a food servant. Days going so quick at prison. But what can we do?

**DAY SEVEN**

Morning coffee, cigarette, and workout, much different than last week. I not done all my session today but I feel great, still thinking how to quit smoking because sometime during workout I feel that I need more air.

Ready for the afternoon session :)
Autonomy - the individual must feel a sense of autonomy in relation to physical activity participation. More specifically, the individual must fully understand the benefits of sport and exercise for them personally, and align this with their other goals and values. Their decision to exercise must be entirely their choice, free from excessive external pressure to exercise or think about exercise positively.

An overwhelming body of empirical literature has shown the benefits of autonomy and internalised regulations in relation to exercise, demonstrating that autonomous exercise induces positive affect both during and after exercise compared with controlled exercise conditions (Daley and Maynard, 2003), and exercise intensity work rate is likely to be higher during preferred intensity conditions in comparison to a prescribed intensity (Parfitt, Rose and Markland, 2000). Conversely, trying to control an individual into participating in physical activity is likely to result in introjected internalisation, as they aim to avoid the anxiety or guilt associated with non-compliance.

Scally et al. (1998) note the importance of control as a mental benefit of sport and exercise; a salient point in respect of prisoners’ perceived lack of control as expressed through hopelessness, which is negatively correlated with exercise in prison (Cauthin, Potter & Butler, 2008). Furthermore, it has been demonstrated that men specifically value autonomy in relation to healthy practices, as a means for retaining masculinity and expressing through hopelessness, which is negatively correlated with exercise in prison (Cashin, Potter & Butler, 2008). Furthermore, it has been demonstrated that autonomy in relation to exercise, demonstrating that autonomous exercise may have a positive effect during and after exercise.

The environmental barriers within a prison make it particularly difficult to exercise autonomy, and research should recognise that incarceration will never be synonymous with choice and control. Nevertheless, it is possible to exercise autonomy in some ways, and voluntary participation in prisons is an approach which is advocated when delivering sports interventions in the community (Daley and Duda, 2006; De Bourdeauhuij et al., 2002) and in prisons (Andrews and Andrews, 2013; Meek & Lewis, 2012).

Participation in the Cell Workout Workshops was entirely voluntary, and there were no consequences for prisoners who did not apply, or even those who decided to drop out of the course at any point. In terms of the workouts, all exercises were performed individually and participants could perform them at their own pace. Participants had less choice in terms of which exercises were performed, as the majority were chosen by L. J., however, this was somewhat necessary to ensure that all parts of the body were targeted throughout the workshop and that a wide variety of new exercises were taught. To promote a sense of autonomy towards the end of the fortnight participants could suggest exercises for the group to perform, culminating in each of them delivering a short workout of their choice on the final day, whether that be from the Cell Workout book or their own body-weight exercise ideas. Perhaps the greatest means of promoting autonomy for exercise amongst the participants is the Cell Workout book. The book is a tool which enables prisoners to engage in autonomous exercise, regardless of whether they are let out of their cell onto the wing, or to go to the gym, allowing them to regain some control over their exercise behaviours in prison.

Interviews with participants identified consistency as a key factor in the workshops’ ability to support prisoners’ autonomy to engage in exercise. The prison regime has a high control over prisoners’ daily lives, and as such, there is uncertainty each day with regards to which activities they will be able to engage in, an uncertainty which is heightened for those on wings with no free-flow. Just as a decision to exercise should be free from pressure, if the decision to exercise is thwarted by factors outside of a prisoners’ control, this is likely to have a negative effect on their perceived autonomy. Although the workshops were also subject to the gym, allowing them to regain some control over their exercise behaviours in prison.

Measures of autonomy in relation to exercise increased significantly from the start to the end of the workshops (Z = -3.796, p < 0.000). However, at follow-up, measures of autonomy had begun to decrease and were lower than they had been at the start of the intervention. This was not a significant decrease in respect of prisoners’ perceived lack of control as a key factor in the workshops’ ability to support prisoners’ autonomy to engage in exercise. The prison regime has a high control over prisoners’ daily lives, and as such, there is uncertainty each day with regards to which activities they will be able to engage in, an uncertainty which is heightened for those on wings with no free-flow. Just as a decision to exercise should be free from pressure, if the decision to exercise is thwarted by factors outside of a prisoners’ control, this is likely to have a negative effect on their perceived autonomy. Although the workshops were also subject to the gym, allowing them to regain some control over their exercise behaviours in prison.

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The majority of prisoners share a cell, and if they share with someone who they do not feel comfortable exercising in front of, for whatever reason, this is likely to prevent them from doing so when locked in their cell. Secondly, there is often uncertainty regarding when a prisoner will be let out of their cell for a shower, so for hygiene reasons some prisoners prefer not to exercise if they do not know for certain that they will be able to shower within a reasonable amount of time. Participants had less choice in terms of which exercises were performed, as the majority were chosen by L. J., however, this was somewhat necessary to ensure that all parts of the body were targeted throughout the workshop and that a wide variety of new exercises were taught.

An overwhelming body of empirical literature has shown the benefits of autonomy and internalised regulations in relation to exercise, demonstrating that autonomous exercise induces positive affect both during and after exercise compared with controlled exercise conditions (Parfitt, Rose and Markland, 2000). Conversely, trying to control an individual into participating in physical activity is likely to result in introjected internalisation, as they aim to avoid the anxiety or guilt associated with non-compliance.

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this – moaners! I get it, everyone’s a moaner, you know, you’re inside, suck it up a little bit, but what can you do? I had to constantly find solutions to barriers I was coming up against.

The clear majority of those who were interviewed were not aware that the workshops included discussion based sessions in the afternoon. Despite this, they were incredibly well received, with many in the interviews revealing that they found the afternoons of greater personal benefit than the morning workouts. Feedback on the afternoon sessions reflect strong emerging themes of motivation, determination and a sense of self-confidence that participants gained from engaging in these sessions. The first topic regarding mind-set and how to move from a “fixed” mind-set to a “growth” mind-set was frequently identified as a highlight, with many participants identifying strongly with this terminology, challenging their own thought processes and gaining a sense of autonomy as a result, which is crucial for behavioural change.

“I enjoy learning about how exercise can put you in a positive mindset. The evening workshop made me realise that I can achieve anything I want with hard work and determination”

“[I most enjoyed] showing that anyone can do it and showing all of us how to make it”

“I loved the bit about being stuck in the same mindset, which was so true for me. Time for a change in my mindset”

“[I most enjoyed] the MOT and the class on motivation”

“The motivation, being given the chance to talk about different opportunities available”

“Food nutrition session and motivation discussion. Clear example that anything is possible”

“Very good for your mindset”

Participants’ survey responses stated that one of the most useful elements of the workshops overall was that it gave them the tools to engage in exercise whilst in prison, with many referring to the Cell Workout book as a key enabler for this
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“Very good for your mindset”

 “[I most enjoyed] finding ways to better myself”

Participants’ survey responses stated that one of the most useful elements of the workshops overall was that it gave them the tools to engage in exercise whilst in prison, with many referring to the Cell Workout book as a key enabler for this.

“The learning ability to continue training in my cell when the course is over”

“Well now I have the book I intend to write out my own week by week routine by selecting exercises out of the book and mixing them up to have a full body work out”

“I use all of them as I follow the book. You can do the exercises anywhere in your cell, the prison yard”

“Having a book in my cell is quite useful as I can simply do them all based on pictures from your book”

 “[I found] the book [most useful]. Because if I forget anything it is all right there”

“at any time if bored or down I can go and train somewhere and have plenty of options what to do due to the cell workout”
According to Self-Determination Theory, to promote long-term behavioural change our reasons for engaging in a new behaviour should be more internalised and in line with our own values and beliefs. Participants completed measures of exercise motivation at the start and end of the workshops, which identified their reasons for exercising. These responses revealed that, overall, reasons for exercise had become more internalised across the workshop, with analysis revealing that many internal reasons for exercise were significantly more salient for participants at the end of the fortnight, including stimulation (Z = -2.906, p = 0.004), knowledge (Z = -2.672, p = 0.008), revitalisation (Z = -3.075, p = 0.002), enjoyment (Z = -2.763, p = 0.006), and positive health (Z = -3.391, p = 0.001). There were also significant increases in salience for somewhat external reasons, such as competition (Z = -2.333, p = 0.020), nimbiness (Z = -3.168, p = 0.002), challenge (Z = -3.306, p = 0.001), social (Z = -2.151, p = 0.031), and affiliation (Z = -3.461, p = 0.001). Although these changes are not internal they are not entirely external either, and the fact that they are all seeing significant increases in salience perhaps reflects progress across the continuum of self-determination. It is worth mentioning the increases in more social reasons for exercise, which may be considered extrinsic and less conducive to autonomous exercise in the general population, however, in the prison setting, positive social bonds should be seen as a means of supporting further engagement in exercise and other healthy behaviours, and so, if participants feel that they are exercising more to experience the social benefits, then this should be seen as a positive. It is important to recognise that this was a two-week workshop, and it would not be reasonable to expect changes in regulatory styles of motivation in such a short space of time, so these small changes and increases in the strength with which participants identify with these reasons for exercise is noteworthy. Furthermore, there is a lot to be concluded from the exercise motivations that did not see a significant increase from the start to the end of the workshop, as these were reflective of external reasons. This includes no increases in amotivation, or reasons for exercise that involve losing weight, improving appearance, or stress relief.

The workshops gave participants a clear sense of motivation to engage in healthy behaviours, whether that be exercise, education or adopting a positive mindset generally. There was also an increased self-awareness associated with the change in mindset, with many participants identifying a need to take greater control of their own behaviours. Some refer to the workshops as ‘re-igniting’ their drive to be healthy, suggesting that the workshops were not presenting new concepts or behaviours, but highlighting the personal importance of ones which have diminished over time.

“You know, I went away first time and I thought ‘I’ve screwed up here, I’m gonna be out of work, I’m away from family, loved ones’” But I turned it into a positive journey, but I just knew I didn’t wanna be back there, it wasn’t for me. Whatever you wanna do, do it for yourself, do it for family, do it for your friends, don’t do it for the system, don’t do it to reduce reoffending. You know, reducing reoffending will come because you’re now doing something, you’re now living a happy life. Forget about everyone else, focus on yourself. That’s what I had to do I had to make something of myself because I felt disadvantaged. Going to prison, trying to struggle for a job... that’s given me some determination that I’ve never had to bring out of myself before, to that level, I might have competed in football and stuff in the past, but not to that level. I’ve had to dig deep and kept going.” – L. J.

“It has given me a kick up the arse to do more cardio in the future.”

“You have to change your mindset yourself, no one else can do that for you.”
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“You have to change your mindset yourself, no one else can do that for you.”

“Motivation. I kind of lost it but the classes gave me the chance to get back into it, that kick start I needed.”

“(The workshops gave me) the motivation to continue exercise for weeks and months to come while I serve my time inside.”

“The drive an inspiration to better myself mentally as well as physically.

“It reignited my desire to learn and eat better.”

“It let me think about my own healthy situation concerning my body.”

“It helped me to realise my actual health status and how to improve it.”

“Face the reality of my well-being and go for it! :)”

“It’s really changed my mindset.”

“I believe and feel the workshop has given me a more growth mindset permanently.”

“I never trained in over a year since being in prison. I now have the fire in my belly and determination to keep going.”

“I wouldn’t say it has changed me but I would say it’s re-lit my desire and motivation to do something with my time.”

“It gave me the tools I needed to become more pro-active.”

“It was an absolute eye opener and gives you first hand motivation to continue living healthy and make the correct life decisions.”

“Before the course I was expecting a lull in my training but the course has rejuvenated my training and focus.”
PERSONAL BENEFITS OF EXERCISE

Participants acknowledged the positive impact that the workouts had on their well-being. Although physical improvements were highlighted by some, in particular the satisfaction associated with monitoring their progress through the health MOTs, it was the impact on mental well-being which received the greatest attention. Participants referred to feeling good within themselves, having more energy and being less stressed and more positive in general.

NON-ENGAGEMENT

Using quantitative analysis software, comparisons were made between start measures of those who completed the workshops (completers) and those who dropped out (non-completers), to identify any significant factors that may indicate why some participants were more likely to drop out. A series of Wilcoxon signed-rank tests revealed three significant differences between the two groups, with non-completers being younger than completers (U = 839.500, p = .009), and having significantly lower levels of vitality (U = 868.500, p = .023) and emotional well-being (U = 879.500, p = .024), however, these differences were no longer significant when the cohort of young offenders (YOs) was controlled for (please see Technical Appendix D for more information on statistical analysis). Although the analysis only included five YOs, this finding demonstrates a clear difference in the levels of mental well-being between these YOs and other prisoners, which is of concern. Unfortunately, although this cohort may have been most in need of an intervention such as the CW workshops, it was not possible to engage the YOs effectively, and this will be discussed in greater detail.

“I think that the Cell Workout Workshop was a very good way to get motivation into starting to getting a routine together that could help get over the stress that inmates go through whilst in prison. It helps you to communicate with other inmates as well as promotes good health or at the least makes you think about making some lifestyle changes.”

“It has given me a kick up the arse to do more cardio in the future.”

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“[The workshops gave me] the motivation to continue exercise for weeks and months to come while I serve my time inside.”

“The drive an inspiration to better myself mentally as well as physically.

“It reignited my desire to learn and eat better.”

“Finding out, and improving my vital stats was good”

“The endorphins it releases for the day make you feel good”

“As I was the eldest participant I found myself surprised at my flexibility to perform, it was energising”

“I enjoyed all the sessions, the results after the session is the best, to feel in a good mood, to feel the endorphins.”

“The training sessions in the morning, it gets you ready for the rest of the day and uplifts your spirit, you feel good and motivated energised for the rest of the day”
detail through the logistics and discussion sections of this evaluation.

Interestingly, when YOs were controlled for, the only significant difference between the groups was that completers were more likely to exercise for reasons of revitalisation (U = 670.000, p = .049). This finding suggests that participants who recognised exercise as a way to experience increases in energy through autonomous means were more likely to stay engaged with the workshops. Energy is a theme which arises throughout the participants’ interviews and appears to be pivotal in prisoners’ daily lives and their ability to engage in positive behaviours, understanding the importance of this and highlighting how the workshops can revitalise prisoners may be central to minimising dropouts.

LOGISTICS

WORKSHOP DELIVERY

It is important for practitioners and researchers who are not familiar with prisons to understand and appreciate the structural and cultural factors that operate within a prison, should they wish to engage with prisoners or prison staff effectively. The methodology section of this evaluation paints an idyllic picture of how the workshops were delivered, but prisons are unpredictable environments that can be difficult to navigate without a good understanding of how they operate. As part of the present evaluation L. J. was interviewed following the delivery of the workshops to understand and reflect on his experience of managing their delivery inside a prison from a practical perspective. Qualitative analysis of this interview highlighted four themes that were key to successful workshop delivery namely, respect, autonomy, the prison regime, and flexibility.

RESPECT

There was a clear mutual respect between the prisoners and L. J., and throughout his time at HMP Wandsworth he continually reflected on his own experience of being a prisoner, acting with empathy and making reasonable allowances for the impact of prison life on prisoners’ moods and behaviours. At the same time, L. J. was mindful of confidentiality and security, and found the prisoners to be equally as respectful of this.

“Everyone in there is a human being and they’re just in having their daily business, you know… There is that element when someone’s first gone into a prison it’s like they’ve gone to a zoo! You know. They’re looking around and staring and people and they’re like ‘what you staring at?’ You know! Everyone’s like ‘oh what’s it like behind the walls?’ you know, they’ve got their daily routine in there, respect that… Sometimes there’s a level of confidentiality, so, you know, I am inclusive of what they’re talking about in there, you know, I’m not an officer, but I’m not an inmate and sometimes I feel in a little bit of limbo and sometimes a few things get said in class, whether it be one thing or another, so I sort of let it ride the wave. But actually everyone has been very respectful in terms of that… there was never any confrontation with anyone, nothing below the belt!”

As well as creating a strong rapport with the prisoners, L. J. recognised the importance of developing and maintaining positive relationships with prison staff wherever possible. Before the workshops began L. J. was introduced to a Senior Officer who kindly provided office space on the first wing that he would be working on, and introduced L. J. to the officers on that wing in the morning of the first workshop.

“…I know how to talk to the staff, which I still call ‘Guv’ or ‘Sir’ or ‘Miss’, even once I knew their first name I’d still call them Miss or Sir, it’s embedded a little bit. But I had to prove myself every step of the way and I done that wing by wing by wing to each set of officers… The Monday morning of my start, [the officer said], ‘get in early and we’ll get you into the A Wing officers’ morning briefing’, so everyone gets in early, gets their brief then introduced me, he said ‘he’s L. J. goin be here for the next six weeks’ so I was really grateful for that.”

AUTONOMY

The practical delivery of the workshops was managed solely by L. J., from their promotion to the selection process and delivery. The most crucial factor that
allowed L. J. to deliver the workshops autonomously as he was the only person on the wing who knew the opening hours, closing hours, was quite a similar layout to Wandsworth so I knew the wing it was like I was back on the wing. Pentonville knew what it’s like with regime and being realistic about and early get it prepped, set up, set myself up before it paper this is all working out in my head, logistically I think workshop and I was daunted about it… I thought on which often resulting in “lockdown”, meaning prisoners nature of prisons and the many issues which impact on prisoner, L. J. experienced first-hand the unpredictable to for staff and prisoner safety. During his time as a day of the week, but it is strict and must be adhered which meant he was able to navigate through the Although L. J. was given the privilege of “holding keys” “Never really got to do much due to lockdown and staff.” “Sometimes there were inconsistencies in scheduling but at no fault of L. J..” “I’ve not had many afternoon sessions.” “It had its perks being on the wing, but, on some wings, the space was so small I’d have to do an hour’s workout with seven people, back to back with the next seven – which was great for me as I’d get a double workout! But the afternoons were fine as we could fit fifteen on chairs, just not to work out.” YOUNG OFFENDERS The third workshop consisted of young offenders (YO; 18-21 years) only, who were all on remand within the prison, meaning they had not yet been sentenced and had no opportunity for free-flow, spending the majority of their time in their cells. Unfortunately, the engagement level from this cohort was very poor, and the decision was made to discontinue the workshop and were not escorted. The Senior Officer on the wing advised that any activity with the YOs would be risk-assessed in advance, which sometimes meant that a suitable space could not be used at all. 

PRISON REGIME Although not all prisoners operate in the same way – indeed, not all wings within the same prison operate in the same way – there are many commonalities between prisons. Prison regime according to a ‘regime’ works as the daily timetabled of prisoners’ activity. The regime may differ depending on the prisoner, the wing, or the nature of prisons and the many issues which impact on it. Such as staffing levels or security breaches, which often result in “lockdown”, meaning prisoners were locked in their cells. “It was a big learning curve. I was worried, I had this workshop and I was daunted about it…” I thought on paper this is all working out in my head, logically I think this works; I’ve got it all in my head. I go in there bright and early and get it prepped, set up, set myself up before it starts, and then I instantly knew things wouldn’t work. e.g. the course of action and they did because I knew, I instantly knew what’s like with regime and being realistic about I really mean to respect… when I went back on the wing it was like I was back on the wing. Pentonville was quite a similar layout to Wandsworth so I knew the wing and I knew the opening hours, closing hours, how things can happen and sometimes how they can’t happen. I expected that, you can’t beat around that, you can’t tell when there’s gonna be a staff shortage, at the drop of the hat there could be a lockdown and that’s the day, and therefore would be kept in their cells during working hours. On these wings, L. J. had to identify what had happened. I shut down. It was, you know, lugging stuff from wing to wing… [without keys] well it wouldn’t have happened.”
require more intense support, and in a prison dedicated to YOs it would be normal practice to escort prisoners from their cell to activities and back, however, there was limited resource available to make this possible in Wandsworth. Implications for this and suggestions for future workshops to engage YOs are presented in the discussion of this evaluation.

"It wasn’t managed properly and I feel sorry for the officer who tried to you know, he really put himself out there to get it confirmed, but it really wasn’t managed properly. They had to have their door opened, have their hand held to the classroom, I probably needed two officers in the classroom because people would come in dribs and drabs, some would come one day and not the next day, these are kids that had no jobs, no wings jobs, so these are on 22 hour bang up… Look, I don’t blame them, they’re getting let out their door and they wanna go chat to their mates, of course I understand that and listen I’m not there trying to be their tutor, or give them detention, there’s none of that whatsoever. On the one time I did get them all in they were pretty quiet... the afternoons were probably quite... Strange… even the group discussions, I think the afternoons were probably quite a weird environment for ‘em… to sit together in a room with fifteen people on chairs quietly, they’ve probably never ever done that, you know. But in the mornings doing the workout to give them a bit of a boost you know, I’d have six people one day, a different seven people the next day. It needed officers to bring them into the room, not lock ‘em in but basically keep ‘em in there, observe it all and then take ‘em back to their cells afterwards. They’re getting let out after 22 hour bang up they’re thinking “I just wana go and talk to my mate”.

PARTICIPANT FEEDBACK

Sixty-five participants provided feedback on their experience of the workshops through the surveys completed at the end of the fortnight. Participants were asked if there was anything they would choose to change about the workshops, with the overwhelming response being to extend the length of time that they run for, or to provide ongoing support once the workshop ends. There were also many requests to use an exercise space which was outside, rather than indoors.

“I wish it could be longer. I just want more of it, which is a good thing, I loved it.”

“I would recommend it should be 8-12 weeks to have the continuity as I and the others could very easily stop exercising as because the group sessions is over and many of us could be easily stop workout for different reasons, one of the reasons could be joint pain from lack of exercise previously.”

“To be honest I’d just like it to be longer, 2 weeks isn’t enough.”

“I thought the course could be longer, maybe 4 weeks instead of 2 weeks, as I was just getting into it properly in the second week, hahaha!”

“The only thing I would change about the course is I would make it an ongoing thing and not just two weeks, it’s just not enough. It needs to be something more fixed as an exercise and education course.”

“To check up on people 4-6 weeks after the course has finished to see how they are doing. To have a session with people who have done the course to run the session if the cell workout teacher is not about.”

“I would make the course longer. Maybe have bigger classes in a larger area and I would do it outside at times if weather was ok and if it was possible.”

“It would be nice to exercise in fresh air.”
DATA GATHERING

Data gathering within prisons can be a complicated process, advice for future researchers and practitioners is based on the experience of the current evaluation. Participants were given careful consideration to the prison regime and the possibility of prisoners moving within and between prisons, and to submit data requests to prison management in a timely manner, preferably before research commences. In terms of ethical approval there may be a disparity between the requirements of the National Offender Management Service (NOMS) and individual prison requirements, so to avoid any delays or restrictions once research has commenced it is advisable to make both NOMS and prison management aware of the research, along with any intentions for data gathering or dissemination of findings.

SURVEYS

There was a high response rate to the start surveys (n = 105), and completion rates of the individual surveys were also very high with only four questions missing more than 10% of responses. All participants who were aware of the research, along with any intentions for data gathering or dissemination of findings.

DATA INTERVIEWS

Participant interviews were conducted in two phases; inside the prison (on the wings, in workshops and in the canteen) at the time of collecting follow-up data, and through the legal visits suite inside the prison, managed by the researcher. A list of prisoners who were still in the prison at follow-up was obtained from prison management in a timely manner, preferably before research commences. In terms of ethical approval there may be a disparity between the requirements of the National Offender Management Service (NOMS) and individual prison requirements, so to avoid any delays or restrictions once research has commenced it is advisable to make both NOMS and prison management aware of the research, along with any intentions for data gathering or dissemination of findings.

Firstly, there was potential for selection bias as the selection process for interviewees was based on an opportunity sample of participants who were known to L. J. secondly, there was a possibility of response bias from interviewees who were aware that L. J. was close by. In terms of the interview setting, even relatively private spaces within the prison are not free from distraction, and interviewees were sometimes visibly distracted by noises external to the interview.

In recognition of the limitations surrounding the first phase of interviews, a second phase was conducted through the legal visits suite within the prison, managed by the researcher. A list of prisoners who were still in the prison at follow-up was obtained from prison management in a timely manner, preferably before research commences. Identifying those who had not yet been interviewed and any who had missed a section during the workshop without reason (according to the register), and were therefore deemed to be less engaged. The researcher approached these individuals when gathering follow-up surveys inside the prison, and obtained their permission in principle to participate in the interviews. The names of nine participants who had agreed to be interviewed were provided to the legal visits team who arranged a series of back to back interviews in one-hour slots over two days, as there is a maximum of five slots per day. Permission was obtained from prison security to record the interviews on a voice recorder. Interviewees were collected from their cell by prison staff and brought to the legal visits suite according to the interview schedule. The legal visits suite consists of individual rooms in a quiet space within the prison, free from distraction. Each room contains chairs separated by a table, and there is a machine to buy hot and cold drinks. Unfortunately, the participants were not made aware of the purpose of the interviews and believed them to be legal visits, which resulted in two participants failing to attend. The remaining seven interviewees attended the suite and were put at ease when arriving to find that the interviews were regarding their experience of Cell Workout.

Although it is challenging to conduct an interview entirely free of bias, the second phase of interviews had minimal association with L. J. in an effort to lessen response bias, and participants who were seen to be less engaged were targeted to try and provide a more representative sample. The atmosphere in the interviews conducted in the legal visits suite was much more relaxed than those in other areas of the prison, the interviews were undisturbed and interviewees’ responses appeared more engaged and were considered more important. On completion of each interview all of the interviewees noted how much they had enjoyed the opportunity to talk openly about their experiences of Cell Workout, and about their health-related behaviours in general.

WHilst conducting interviews inside the prison the research was accompanied by L. J. who held keys, which eased movement around the prison. At least one participant from each cohort across the workshops was approached on the wing and asked if they were happy to be interviewed at a time that suited them, the researcher then returned with L. J. at a suitable time, and the interviews were conducted between the researcher and participant in a private room or space away from anyone else. Twelve interviews of between 15-35 minutes in length were completed inside the prison. Conducting interviews inside the prison allowed for greater numbers of participants to be reached in a relatively short space of time, producing a valuable data set. However, there were limitations to this approach in terms of bias and suitability of the interview setting. Firstly, there was potential for selection bias as the selection process for interviewees was based on an opportunity sample of participants who were known to L. J. secondly, there was a possibility of response bias from interviewees who were aware that L. J. was close by. In terms of the interview setting, even relatively private spaces within the prison are not free from distraction, and interviewees were sometimes visibly distracted by noises external to the interview.

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I just love the whole story behind L. J.’s journey. He is an inspiration for all prisoners and to a certain degree a beacon of hope.

Before going to prison, Alexander engaged in an unhealthy lifestyle of drugs, alcohol and overeating, which had led to him being morbidly obese at the age of 44. Alexander decided to use his sentence as an opportunity to get fitter and healthier and was down to a healthy weight when he engaged in the Cell Workout Workshop, but had lost some of the motivation to continue exercising.

What did you enjoy most about the workouts?

“I already liked working out. It was good to learn new exercises. I train in my cell four or five times a week and use a lot of the stuff I was taught in the workshops.”

Alexander lost 1.7kgs over the fortnight and his heart rate decreased by 10bpm into a healthier range for his age. Following the workshop Alexander enrolled onto a distance learning course funded by the PET.

What did you enjoy most about afternoon sessions?

“I think the afternoon sessions made the course. Learning about diet and education was very important.”

Do you think the workshop has changed you in any way?

“It has definitely given me more structure in my day to day life.”

Would you change anything about the workshop?

“I wouldn’t change anything about the course, other than prison giving Mr Flanders more support. There is not one bad aspect to the last two weeks and Mr Flanders can only be admired for what he has achieved in the way he has turned his life around. The most inspiring thing is the way he is trying to give something back to the prison service and give current inmates hope. Surely this is what reform and rehabilitation should be built around... people like Mr Flanders who have been there and come out the other side.”

CASE STUDY SEVEN

DATA GATHERING

Data from start surveys for those who dropped out of the workshops have provided an indication as to reasons for why this may be, which is supported by second-hand information from fellow participants who did complete the workshops. However, interviews with those who dropped out would provide a greater insight and help to inform the development of future workshops to support these individuals further.

The lack of data reflecting participants’ IEP level at the start of the workshops makes it difficult to highlight objective changes in behaviour. Future workshops should obtain such data at the start by making a request to prison management once participants are known and again at three and six months’ follow-up, which increases the chance of obtaining data before prisoners are released or move to a different prison.

The gathering of follow-up data was not as simple or time efficient as it had been for start and end data, however, the outcomes from this data have supported previous research which highlights the detrimental effect that can be caused by a lack of ongoing support following prison-based programmes, and this is valuable. Future workshops should continue to focus on follow-up data and adopt the approach of knowing each prisoners’ cell number to enable individual requests to complete the surveys.

SUPPORTING COMPETENCE EXERCISE

There was a clear mutual respect between the prisoners and L. J., and throughout his time at HMP Wandsworth he continually reflected on his own experience of being a prisoner, acting with empathy and making reasonable allowances for the impact of prison life on prisoners’ moods and behaviours. At the same time, L. J. was mindful of confidentiality and security, and found the prisoners to be equally as respectful of this.

Feedback from participants who completed the workshops, in particular their reflections of those who dropped out in the first week, indicate that the initial workouts are very demanding and may not have been optimal for all those taking part. Therefore, although many participants savoured the opportunity to challenge themselves by completing the intense workouts, perceived competence with regards to exercise may have been much lower for those who were not able to perform the workouts to a desired level.

Those who struggle most with the workouts are likely to be the ones who do not already exercise regularly and have poorer fitness levels, which is supported by lower readiness to exercise and physical functioning scores for non-completers. However, these individuals stand to gain the most from the workshops in terms of being introduced to a new behaviour that can improve their well-being and give them the autonomy to support them through their daily lives in prison. According to SDT, if the workouts are to support long-term engagement in exercise from these individuals, then it is important that they feel an increasing sense of competence for performing the exercises, otherwise motivation will not increase. Therefore, the exercises need to reflect individual abilities whether they have high or low fitness levels.
The workshops did support varying abilities to a certain extent, as participants who were less able to keep up with the more capable seemed to have had the option of performing “easier” versions of the exercises, or slowing down their movements, rather than the “standard” version performed by L. J. However, within the context of the first workshop, in a group of male prisoners who may not be familiar with one another and have not undergone previous discussions, it is probable that many of them will strive to achieve and maintain a masculine image which requires full engagement with the exercises. This may seek to become more salient when L. J. is also performing the standard option, as anything less than this could be perceived as a failure. In recognition of the masculinity which may dominate the initial workouts, workouts in the first session should be demonstrated with the so-called “easy” version as standard, which is performed by L. J., with the option to increase the difficulty for those who wish to do so. To ensure competence levels are maintained amongst prisoners, the group those who are more capable should continue to feel challenged, one way to achieve this is to increase the difficulty of challenging exercises throughout the workshop, with L. J. beginning to perform the standard exercises rather than the easier versions towards the end of the first week, as well as offering “hard” options to those who want to challenge themselves further. At this point, those who were less capable at the start of the workshops will have had more of an opportunity to perform the exercises successfully, therefore increasing their competence and the likelihood of them continuing to engage with the workouts, even if the standard version is not perceived as an exercise. Furthermore, the interviews and survey feedback suggest that as the workshops progress, with increased understanding of the group and a greater sense of comradery, the masculinity within the group focuses more on teamwork and perceived effort, rather than individual achievement, which suggests there is even greater support to continue with the exercises regardless of ability.

This staged approach to the workouts in terms of intensity and difficulty may provide more opportunities for the group to engage with the exercises at a level they perceive to be acceptable, not just in relation to their own abilities but also in the context of the group, thus increasing perceived competence for exercise and improving self-report measures of motivation which is crucial for long-term behavioural change.

It is important to acknowledge that even the “easy” versions of the exercises may be far beyond some prisoners’ capabilities, perhaps because of injury or illness. These prisoners should be identified early on, and supported by health MOT at the start of the workshop and referred to the prison’s healthcare team, with a view to engage in remedial fitness classes which are more reflective of their abilities until such time that they can engage with the CW workouts. Alternatively, prisoners may wish to adopt remedial focused workshops which are designed to engage those with particularly poor fitness levels or injuries, providing an exercise environment which is supportive of their individual needs whilst still providing some challenge.

INTENSITY MEASURE

Although the CW workouts were generally very tough and exertion levels were high, no measure of exercise intensity was completed. In experimental settings, exercise intensity will often be taken as a measure of the maximum amount of oxygen that can be utilised during the exercise, also known as maximal capacity, or VO2 Max. It is not feasible to use this approach outside of an experimental setting, and this purely physiological measure has been criticised for its lack of consideration for individual differences in fitness levels. Dishman (1987) proposes that VO2 Max. is the hardest variable to measure accurately due to its wholly experimental nature, consistent findings linking vigorous aerobic exercise with self-esteem and reductions in state anxiety (McDonald and Hodgson, 1991; Petruzzello et al., 1991) still fail to produce a reliable correlation between exercise dose and impact, and measures of exercise intensity differ so significantly. As a solution to this variability, Ragan (1997) proposes perceived exertion as an alternative measure to subjective measures of motivation, however this must be considered in the context of participants’ ethnicity, as a white British Londoner, the CW Workshops at Wandsworth were a pilot, the majority of the selection for the workshops was based on an opportunity sample of prisoners who were willing and available to engage in the workshops, which was indicated by the submission of an application form. Furthermore, consultation with officers to decide who will have access to the workshops, the which prisoners may be suitable, and selecting those who approached L. J. directly to express an interest in participating, will have resulted somewhat in a selection bias. This selection process may also account for differences in ethnicity between the general population and workshop participants, as non-British white prisoners may be somewhat segregated in the prison due to language and cultural barriers, which would almost certainly be an issue when approaching L. J. directly, and may also affect how likely it is that officers will consider them when making recommendations.

The high levels of relatedness between L. J. and the workshop participants plays a key role in the enjoyment and retention of the motivational content. However, this must be considered in the context of participants’ ethnicity, as a white British Londoner, the CW Workshops at Wandsworth were a pilot, the majority of the selection for the workshops was based on an opportunity sample of prisoners who were willing and available to engage in the workshops, which was indicated by the submission of an application form. Furthermore, consultation with officers to decide who will have access to the workshops, the which prisoners may be suitable, and selecting those who approached L. J. directly to express an interest in participating, will have resulted somewhat in a selection bias. This selection process may also account for differences in ethnicity between the general population and workshop participants, as non-British white prisoners may be somewhat segregated in the prison due to language and cultural barriers, which would almost certainly be an issue when approaching L. J. directly, and may also affect how likely it is that officers will consider them when making recommendations.

The feedback from participants regarding behaviours following the workshops was generally positive, as it implied that some prisoners felt they could not engage in education and employment simultaneously. There should be an understanding amongst prisoners’ needs to balance employment commitments and the impact this may have on the chances for them to engage in programmes which will support them following release. These are clear benefits of workshops, using Brown’s 15-grade scale of ratings for perceived exertion (the Ratings of Perceived Exertion scale; Borg, 1970). This additionally increases confidence around engagement and motivation in relation to the intensity of the exercises, allow for more accurate monitoring of how challenging the work is, as the measure of the growing body of research adopting this method to establish more accurate comparisons.

MOTIVATIONAL SESSION CONTENT

Through interviews and survey feedback it was apparent that a subset of participants believed that they did not learn anything new in the afternoon motivational discussions, therefore the content did not engage them or challenge their perspectives. In the same way that the workshops are challenging in nature, the motivational sessions should also seek to engage as many prisoners as possible by offering diverse content aimed at all participants regardless of their capabilities. For example, the workshops could look to include optional additional learning material that can be completed outside of the workshops. This content should be relevant to the prisoners and encourage forward planning, such as devising a food diary that is optimal for their exercise goals based on the food available on the prison canteen sheet, or working on a business plan in an area that reflects their own interests. Furthermore, those who are already engaged in education or employment may also be encouraged to take their learning a step further and use it to support others in a mentoring role. Proposals regarding the development of motivational content outside the workshops are provided later in the discussion.

SUPPORTING AUTONOMY

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YOUNG OFFENDERS
An estimated one third of children and young people in contact with the youth justice system present with mental health needs which are often undiagnosed and go unmet. For example, in a study by Chitsaz and colleagues (2014), a noteworthy statistic given that of 35,000 young people imprisoned in England and Wales, 3,413 (Ministry of Justice, 2015). Despite these needs, and the research demonstrating the benefits of providing additional support on mental health, the Salter's Needs Assessment Schedule for Adolescents (SNASA; as two important roles which are often used to assess young offenders' mental health needs, does not take the management and promotion of physical healthcare into consideration. 

The purpose of the CW workshops is to promote more resource and ongoing support if future workshops are to be able to engage with prisoners and gain their respect. J. occupies as an ex-prisoner has a huge impact on his role also provides a goal for participants who are motivated and wish to challenge themselves further, creating high levels of autonomy and competence, and employability skills which can prepare them following release.

The detrimental effect that a lack of long-term support can have on prisoners is evident through this evaluation, as the potential for long-term engagement in healthy behaviours by developing a sense of relatedness to a positive individual or group. Unfortunately, the scope of the workshops in terms of the available resource to support their delivery, which meant that ongoing support following completion and follow-up was not possible. Furthermore, there were overwhelming suggestions to make the workshops longer, which is understandable given the curiosity and stimulation they provide. However, the workshops in Wandsworth ran for 35 sessions, even if all participants had engaged throughout the fortnight they would have reached 105 prisoners in total, which is less than 7% of the total population. Given the findings at follow-up in terms of the significant reduction in scores of well-being and vitality, the decreased score in scores of exercise, competence, relatedness and readiness to use PA all high at follow-up, which demonstrates that prisoners are motivated to continue engaging in healthy behaviours, but they need a means of support to do so.

By employing a serving prisoner as a mentor, the workshops provide more figures who are engaged in healthy behaviours for participants to relate to, thus increasing the likelihood that they will feel a sense of connectedness. Furthermore, these mentors could look to identify those who drop out altogether and engage with them whilst the workshop is ongoing, to establish reasons for non-engagement and understand whether anything can be done to bring them back into the workshop. In terms of logistics in the prison, mentors understand the prison regime which will help with the daily management of the workshops and the development of relationships with prison staff which is so vital to the workshops’ success. The increased role also provides a goal for participants who are motivated and wish to challenge themselves further, following completion of the workshops to support the daily management of the workshops which would allow for L. J. to devote more time to engaging with participants individually. To strengthen a sense of relatedness further, consideration should also be given to bringing partners from workshops who have since been released back into the prison to share stories of success and how the workshop supported them.

As discussed earlier in relation to readiness to exercise, the Translational Model of Behaviour Change (TTM) postulates that for individuals to maintain developmental change there is a need to find support from others who encourage healthy behaviours, as well as the use of reminders that encourage healthy behaviours, and substitutes for unhealthy actions. Mentors could provide support and a regular reminder that engaging in exercise and other healthy behaviours is beneficial to well-being, as well as providing suggestions for being healthy as an alternative to unhealthy behaviours, such as new ideas for food options on the canteen sheet, positive promotions or engaging in sports or exercise in the prison, or a source of positive conversations rather than engaging in unhealthy and negative thoughts. It is also important to note that readiness to exercise, competence, relatedness and readiness to use PA all high at follow-up, which demonstrates that prisoners are motivated to continue engaging in healthy behaviours, but they need a means of support to do so.

As this evaluation has demonstrated, the position of L. J. occupies as an ex-prisoner has a huge impact on his ability to engage with prisoners and gain their respect in a short space of time, as well as playing a pivotal role in the promotion of participants’ motivation. Therefore, if future workshops are to maintain this element of relatedness they then should continue to employ ex-prisoners and perhaps serving prisoners in their debut role as Prisoner-mentors in prisons in England and Wales as mentors under various schemes, including the Samarian’s highly successful Prison Listeners’ Scheme, which were not possible. Furthermore, there were overwhelming suggestions to make the workshops longer, which is understandable given the curiosity and stimulation they provide. However, the workshops in Wandsworth ran for 35 sessions, even if all participants had engaged throughout the fortnight they would have reached 105 prisoners in total, which is less than 7% of the total population. Given the findings at follow-up in terms of the significant reduction in scores of well-being and vitality, the decreased score in scores of exercise, competence, relatedness and readiness to use PA all high at follow-up, which demonstrates that prisoners are motivated to continue engaging in healthy behaviours, but they need a means of support to do so.

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cell, and some participants have noted that this group environment is essential for them to exercise at all, whilst participants who did not do any cardiovascular exercise prior to the workshops are now looking to attend the gym wherever possible. Thus, the workshops have driven an even greater need for exercise amongst its participants, which the PE Department should play a key role in supporting and delivering.

Delivering the CW workshops in various rooms and spaces across the prison required a lot of effort and resulted in the loss of some valuable workshop delivery time, therefore it is not a sustainable approach. To support the sustainability of future workshops the ideal space for them to be delivered is in the PE Department, as this is a risk assessed area that should be large enough to accommodate a group workout. Furthermore, PE Departments often have outside spaces that could be used for workouts, which responds to the feedback of some participants who would have liked an opportunity to exercise outside.

Although L. J. played a key role in the delivery of the workshops, there is a danger that presenting all workshops as external to prison management will increase the divide between prisoners and staff that can exist, promoting an “us versus them” culture. PE staff often have a great rapport with prisoners, and given the uncertainty around their job roles at present future workshops could provide a key opportunity to engage PE staff in prisoner rehabilitation by employing them to deliver workouts alongside prisoner mentors. Close monitoring of the workshops and feedback would be needed to ensure that the relatedness which was so pivotal in Wandsworth is not lost. By employing mentors key to prisoners’ well-being, and providing prisoners with more ways to be autonomous in their daily lives is empowering, prompting them to engage in further healthy behaviours.

The logistics of prison life are complex, and for the most part prisons are still reliant on pen, paper and officers to pass on information and requests. Inevitably, this means that information is often lost or miscommunicated, which is especially true when prisoners move into a different cell or wing. The CW workshops relied heavily on the use of paper and pens; application forms, registers, content for the afternoon sessions, daily diaries, and data used for the evaluation. Unfortunately, half of the registers were lost and some of the information was not up to date, daily diaries and surveys were lost and participants were not able to take any of the group discussion information from the afternoon sessions. Finally, content associated with the afternoon sessions could be expanded; although the open discussion format of the group discussions is central to a supportive learning environment, all the content that is shared in these discussions can be saved online and accessed later. There is scope to include additional learning material, more in-depth information on each topic for those who are interested in learning more, links to information about the organisations who have presented in the afternoons and how to get in touch with them. And finally, an online forum of participants who have engaged in the workshops would allow them to ask and answer questions about the sessions, provide suggestions for meal plans or new workouts, promote group exercise classes and support one another to maintain their motivation to be healthy, creating a positive social network of Cell Workout alumni.

Through the means outlined above technology can promote and support prisoners’ basic psychological needs further, a greater sense of autonomy can be achieved by allowing prisoners to engage with an application process and learning experience that puts them in control, empowering them to ask questions outside of sessions, and finally relatedness is developed through a network of participants who can share experiences and support one another.

Many prisoners in England and Wales now use technology to support the daily management of prisoners’ needs. This includes “self-service” technology, allowing prisoners to manage some aspects of their own lives such as arranging visits, ordering from the canteen, and topping up phone or credit. Society relies on electronic registers would improve accuracy, security and eliminate the need to advise officers of prisoners’ attendance and any changes. Finally, the provision of more information that be engaged with at a pace that suits the individual, and allowing them to ask questions outside of sessions, and finally relatedness is developed through a network of participants who can share experiences and support one another.
CHAPTER TEN

IMPLICATIONS FOR POLICY AND PRACTICE

EASY, ATTRACTIVE, SOCIAL AND TIMELY (EAST)

The Behavioural Insights Team (BIT) are a government institution dedicated to the application of behavioural sciences across the policy community. BIT outline four simple ways to encourage a behaviour, namely, make it Easy, Attractive, Timely and Social (EAST; Service et al., 2014). The Cell Workout Workshops reflect these four means of applying behavioural insights in a number of ways, these have been outlined below to provide tangible examples that policy makers and practitioners can refer to, along with recommendations for adaptations to future workshops based on suggestions from BIT.

EASY

Reduce the ‘hassle factor’

The application process for the workshops is very straightforward for those who wish to apply. The form only requires a name, prison number, cell number and a reason for applying. However, for prisoners with very low motivation levels this may be enough to put them off applying altogether. Future workshops that wish to reach prisoners who may benefit most from engaging should ‘harness the power of defaults’ by automatically signing prisoners up to the workshops when a trigger has been developed specifically for prisoners, making it Easy, Attractive, Social and Timely (EAST; Service et al., 2014). The Cell Workout Workshops reflect these four means of applying behavioural insights in a number of ways, these have been outlined below to provide tangible examples that policy makers and practitioners can refer to, along with recommendations for adaptations to future workshops based on suggestions from BIT.

ATTRACTIVE

Attract attention

The Cell Workout book is very popular within prisons already and L. J.’s story has caught the attention of many prisoners. This ‘buzz’ around the CW brand meant that posters promoting the workshops around the prison were eye catching, as they mirrored the CW logo which the book has made so familiar. The BIT highlight the effectiveness of personalisation to attract attention, and this was incorporated in the workshops in a number of ways: Firstly, Cell Workout as a brand is directly targeting prisoners and the workshops have been developed specifically for prisoners, making them very personal. And secondly, from the outset of the workshop each participant completes a health MOT which provides them with personal information about their health which they can use to track their progress. Future workshops should look to provide participants with information about their own motivation levels and mind-set from the outset of the workshop, this data is available through the surveys and data that are collected before the workshops begin and will provide a means to personalise the afternoon sessions further.

DESIGN REWARDS FOR MAXIMUM EFFORT

Those who complete the workshops are given their own copy of the CW T-shirt. The attractiveness of the T-shirt is greatly improved by its scarcity as prisoners are already limited in terms of the clothes they own inside prison, and the CW T-shirts are limited to prisoners who have completed the workshop only. The supporters’ day also provided a fantastic reward for those who displayed maximum effort, giving them a unique opportunity to engage with friends and family in an informal and positive way that is not possible elsewhere in the prison, in particular giving prisoners photographs with their supporters was seen as a considerable reward.

The workshops draw attention to self-image through the demonstration of L. J. as a figure who looks good through exercise and feels good through the positive mental well-being that this brings, offering prisoners a reward in the form of positive self-image by engaging with the workshop and the healthy behaviours that it presents.

SOCIAL

Use the power of networks

The workshops bring together a group of prisoners who may not otherwise engage with one another, creating a social network with a readiness to engage in healthy behaviours as common ground. Networks allow behaviours to be spread, therefore, as participants begin to engage in other healthy behaviours in addition to exercise, the likelihood that other participants will do the same increases. However, these groups are not formed organically so in order to be maintained they are likely to require greater support. As suggested in the discussion, ongoing support following workshops could promote the social network of prisoners who have engaged with the workshops, perhaps providing ad-hoc workouts and opportunities for sharing advice and encouragement.

ENCOURAGE PEOPLE TO MAKE A COMMITMENT TO OTHERS

Participants are encouraged to set goals at the start of the workshop which they can work towards throughout the fortnight, these ranged from specified weight loss to cutting out biscuits from their diet or signing up to an educational course. The goals were well-defined, simple, and declared in front of the group to be written up on a flip chart and revisited at the end of the fortnight. Participants were also encouraged to share these goals with others, either inside or outside of the prison, strengthening their commitment by making it public. Future workshops could expand on this method of social commitment by encouraging participants to make commitments at the end of the workshop, such as continuing to exercise three times a week, and sharing these with the group and significant others.

TIMELY

Prompt people when they are most likely to be receptive.

The information in the CW workshops is all presented in language that participants are familiar with, and without any unnecessary information. Furthermore, participants do not have to complete anything or answer any tough questions to get the information, it is presented to everyone in a straightforward manner using relatable concepts.

Tangible examples that policy makers and practitioners can refer to, along with recommendations for adaptations to future workshops based on suggestions from BIT.
participants has shown that they were much more receptive to the information given to them at this time, compared with other times when similar information had been presented in prison. For example, many said they had heard of distance learning but never given it much thought until it was presented to them at a time that they felt alert and energised, and saw the personal benefit of engaging in positive activity.

Feedback from the end of the workshops demonstrated that smokers were significantly more ready to use physical activity to support smoking cessation, and interviews revealed that smokers would have been willing to engage in the cessation support provided by the prison healthcare team at the end of the workshop. Unfortunately, at follow-up, smoking behaviours had reverted back to the levels seen before the workshop. This indicates that the end of the workshop may be the ideal time to encourage smokers to engage with formal cessation support, or to present ways in which physical activity can be used to manage cravings. Similarly, there was a wealth of interest in educational courses shown by participants at the end of the workshops, but this did not translate into the number of courses signed up to by participants at the end of the workshops, which would also strengthen the social network of participants.

HELP PEOPLE PLAN THEIR RESPONSE TO EVENTS

Engaging in healthy behaviours is tremendously beneficial in the long-term, but it can often be hard to see how this might translate into the number of courses signed up to or the number of people interested in healthy behaviours in a way that is attractive and appropriate for prisoners. One of the key principles of the Cell Workshops is to make the workshops enjoyable and accessible, and to ensure that participants have positive experiences. This is achieved by making the workshops fun, engaging, and relevant to prisoners, and by encouraging them to identify and discuss their own goals and aspirations.

CONSIDER THE IMMEDIATE COSTS AND BENEFITS

The pilot of the Cell Workout Workshops was a positive programme promoting end of year in healthy behaviours in a way that is attractive and appropriate for prisoners. The Cell Workout book is to exercise within the confines of one’s cell, the workshops actually highlighted a need for many prisoners to be part of a group in order to feel motivated enough to exercise, and engagement in the workshops increased participants’ engagement in group exercise outside of the workshops wherever possible. There was also a shift in prisoners’ exercise behaviours from weight-based training (anaerobic) to cardiovascular alongside serving prisoners. This partnership will work to engage participants during and following completion of the workshop, tackling the issue of non-completers and providing more social support to engage them from the outset, as well as creating a stronger social bond between completers, supporting one another to achieve new goals, engage in regular group workouts, and acting as positive figures of relatedness to support long-term behavioural change.

The present evaluation has emphasised the need for prisons to received continued engagement and support that is relevant to their interests following an intensive programme such as the CW Workshops, which requires effective communication across all prison departments to engage prisoners at the right time before motivation decreases. More natural experiments such as this are needed to inform the prison service about prisoners’ motivations to engage in healthy behaviours, and to highlight the far-reaching positive impact that sports-based interventions can have on prisoners’ well-being.


APPENDIX A. INFORMATION SHEET FOR INTERVIEWEES

I

Interviewee Information Sheet

Cell Workout Workshop: Evaluation interviews

Introduction

I am a researcher from Royal Holloway, University of London, and I am
conducting the evaluation of the Cell Workout Workshop which you have
participated in. Before you decide whether to take part, you need to
understand why the research is being done and what it will involve for you.
Please take the time to read this information carefully. I talk is writers
about the evaluation if you wish.

What is the purpose of the evaluation?

Secondly, the evaluation seeks to provide an understanding of the impact that
the Cell Workout Workshops have had on the individual participants involved
as well as the wider prison population. The results will be used to inform an
evaluation for the Ministry of Justice in informing future policy making, and
to support the delivery of further workshops in prisons across England and
Wales. In addition to this, the results will be used to inform the researcher’s
PhD thesis on motivating prisoners to engage in healthy behaviours.

What will happen to me if I take part?

You will be required to take part in a face to face interview conducted by the
researcher, which will take no longer than 30 minutes. The interview will be
voice-recorded, so you will be asked to confirm that you are happy to be
recorded. If you do not wish to be voice recorded, then you should not
participate in this evaluation. An interview will take place without your
explicit awareness: you will be informed when the recording begins and
when it ends.

Do I have to take part?

No, you do not have to participate. There will be no adverse consequences if
you decide not to participate. You can withdraw at any time without giving a
reason.

What do I have to do if I want to take part?

If you would like to take part, please let the researcher know, and they will
give you a consent form to read and complete.

What are the possible disadvantages or risks of taking part?

There are no known or anticipated risks associated with taking part in this
research.

What are the possible benefits of taking part?

Hopefully you will find taking part to be interesting and enjoyable, but
you will also be playing an important role in developing our
understanding of what works in prisons in terms of motivation and
engagement with exercise and other healthy behaviours.

What happens when the study is over?

After participating in the study you will answer any questions you
might have, and I will tell you how you can find out the results
you are interested.

What if there is a problem?

Any complaint or concern about any aspect of the way you have been dealt
with during the course of the study will be addressed. If you have any
complaints please ask a senior officer in your contact at the
Jiminy Cricket

Will my taking part in the study be kept confidential?

Please note: interviewees may be identified by a member of the research
team as an individual who has been directly involved in the study or
could contact the research team. To ensure that your details are kept
confidential please do not identify any fellow prisoners or members of
officers staff or a nurse who could identify you, or your social
studies which could be interpreted as whistleblowing or violent behaviour.

Once the interview has been recorded by the researcher, it will be
transcribed and then destroyed. They will only be available by the researcher who is
immediately involved in this project and a member of the security team at the
Prison. The data will be stored securely so that there is no risk of
revealing personal details.

Data will be stored securely in accordance with the Data Protection Act 1998.

Contact details of the lead researcher

Hannah Barnett, School of Law, Royal Holloway University of London u/o
info@call-workout.com

Who is organizing and funding the research?

This research is funded as part of the lead researcher’s PhD.

Who has reviewed the evaluation?

The study has been reviewed and received an favourable opinion from the
National Offender Management Service’s National Research Committee.

Thank you for taking the time to read this Information Sheet.
APPENDIX B. CONSENT FORM FOR INTERVIEWEES

Consent Form

I, the undersigned, voluntarily agree to take part in the evaluation of the Cell Workout Workshops.

I have read and understood the Information Sheet provided. I have been given a full explanation by the investigators of the nature, purpose, location and likely duration of the evaluation, and I have been agreed to do. I have been given the opportunity to ask questions on all aspects of the study and have understood the advice and information given as a result.

I understand that I will be asked to take part in a voice-recorded interview as part of the study, and I give consent for the voice-recording to take place. I understand that the recording will be transcribed and destroyed, as outlined in the accompanying information sheet, in accordance with the Data Protection Act (1998).

I understand that I am free to withdraw from the study at any time without needing to justify my decision; without prejudice.

I confirm that I have read and understood this above and freely consent to participating in this study. I have been given adequate time to consider my participation and agree to comply with the instructions and restrictions of the study.

Name: ________________________________
Number: ________________________________
Age: ________________

We may wish to use this data for evaluation and research purposes to help us improve the program in the future. If you are happy for us to do this then please tick here:

Please read each of the statements on the ladder carefully and decide which number describes your exercise behaviours most accurately since participating in Cell Workout Workshop. Circle ‘0’ if it has made no changes to your intention to want to exercise in the near future, and ‘10’ if the workshop has greatly changed your attitude towards exercising in the near future.

APPENDIX C. CONSENT FORM FOR INTERVIEWEES

CELL WORKOUT WORKSHOP – EVALUATION SURVEY FOLLOW-UP

As a successful graduate of the Cell Workout Workshops we’d like to know how you are getting on now and what impact the workshops have had on you, if any. Thank you for taking the time to consider these surveys, your responses will help us to evaluate any changes that Cell Workout has made to you, so that the workshop can continue to grow, improve, and benefit others.

It helps us to have basic personal information about those who complete this questionnaire so that we can measure your progress against your responses in the start and end surveys, but you will remain completely anonymously. We would be grateful for the following information:

Name: ____________________________________________
Number: ____________________________________________
Age: __________________

We may wish to use this data for evaluation and research purposes to help us improve the program in the future. If you are happy for us to do this then please tick here:

Please read each of the statements on the ladder carefully and decide which number describes your exercise behaviours most accurately since participating in Cell Workout Workshop. Circle ‘0’ if it has made no changes to your intention to want to exercise in the near future, and ‘10’ if the workshop has greatly changed your attitude towards exercising in the near future.
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For the purpose of this questionnaire, exercise includes physical activity which increases your heart rate and causes you to break into a sweat, using the bodyweight training method.

Please read each of the following statements carefully and decide how true they are for you in relation to the exercise that you are doing now. If you are not exercising at all then please circle ‘1’ for each question.

If you completely disagree with a statement then circle the ‘1’, if you strongly agree then circle the ‘5’, or if it is partly true, then choose either ‘2’ ‘3’ or ‘4’ depending on how strongly you feel it fits with your own feelings towards exercise.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 Never True</th>
<th>2 Mostly True</th>
<th>3 Agree</th>
<th>4 Strongly Agree</th>
<th>5 Always True</th>
</tr>
</thead>
<tbody>
<tr>
<td>The exercise I have been doing fits very well with my choices and interests</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I definitely think that the way I have been exercising fits perfectly with the way I prefer to move</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I definitely think that the way I have been exercising is a true expression of myself</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I definitely think that I have had the opportunity to make choices with regard to the way I want to move</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think I have been making progress with respect to the goals I set myself</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that I perform my exercises very effectively</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that exercise is an activity in which I do very well</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that I can manage with the requirements of my exercise schedule</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel extremely comfortable when with the others who have shared my exercise space with me</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that I associate with other exercise participants in a very friendly way</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel there are open channels of communication with other exercise participants</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel very much at ease with the other exercise participants</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

For each of the following questions, please mark an X in the one box that best describes your answer.

1. In general, would you say your health over the past two weeks has been:
   - Poor
   - Fair
   - Good
   - Very Good
   - Excellent

2. Compared to when you completed the workshops, how would you rate your health in general now?
   - Much worse now than two weeks ago
   - Somewhat worse now than two weeks ago
   - About the same as two weeks ago
   - Somewhat better now than two weeks ago
   - Much better now than two weeks ago

3. The following questions are about activities you might do during a typical day in prison. Does your health limit you in these activities? If so, how much?
3. The following questions are about activities you might do during a typical day in prison. Does your health limit you in these activities? If so, how much?

<table>
<thead>
<tr>
<th>Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, not limited at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moderate activities, such as moving a table or mopping a floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, not limited at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lifting or carrying a stack of books</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, not limited at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Climbing one flight of stairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, not limited at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bending or kneeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, not limited at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Walking around a football pitch three times</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, not limited at all</td>
</tr>
</tbody>
</table>

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4. Since completing the workshops, to what extent has your physical health or emotional problems interfered with social interaction with others on the wing, staff, or friends and family?

<table>
<thead>
<tr>
<th>Extremely</th>
<th>Quite a bit</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

5. These questions are about how you feel and how things have been with you since completing the workshops. For each question, please give the one answer that comes closest to the way you have been feeling.

| How much of the time since completing the workshops... |
| --- | --- | --- | --- | --- |
| None of the time | A little of the time | Some of the time | Most of the time | All of the time |
| Did you feel full of life? |
| Did you feel very down? |
| Did you feel happy? |
| Did you feel tired? |
The following questions give you a chance to give feedback on your experiences since completing the Cell Workouts Workshop in your own words.

Have you been engaging in any forms of exercise since completing the workshops, if so, what type and how frequently?

If you have not engaged in any exercise since completing the workshops can you explain the main reasons for this, remembering that the workouts can be completed in your own if needed.

Have you engaged in or applied for any educational programmes since you completed the workshops, if so, which ones?

If you haven’t applied for any educational programmes since the workshop can you explain why.

Do you think the workshops have had any lasting impact on you, if so, can you please explain how?

Please use this space to write down any further thoughts, comments and feedback that you may want to add and include any support you think you may need in the future to help you to continue to maintain your progress in achieving your personal goals.
The following questions relate to smoking behaviours. If you are not a smoker, then please tick the box below and you are not required to answer any more questions. We thank you for your time.

If you are not a smoker, please tick this box.

If you are a smoker, please indicate below how many cigarettes you currently smoke per day, on average.

Please circle the letter next to the statement below which best describes you:

A  I do not currently and do not intend to use exercise as a way of controlling my cigarette smoking.

B  Although I do not currently, I’m thinking of starting to use exercise as a way of controlling my cigarette smoking.

C  I exercise once in-a-while as a way of controlling my cigarette smoking, but not regularly.

D  In the past six months I have begun to use exercise regularly as a way of controlling my cigarette smoking.

E  I have been exercising regularly as a way of controlling my cigarette smoking for longer than 6 months.

If you have smoked in the past month please mark the number that best represents how smoking made you feel (1—not at all, 2—very little, 3—a little, 4—moderately, 5—a lot, 6—quite a lot, 7—extremely):

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was smoking satisfying?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did cigarettes taste good?</td>
<td></td>
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<tr>
<td>Did you enjoy the sensations in your throat and chest?</td>
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<tr>
<td>Did smoking calm you down?</td>
<td></td>
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<tr>
<td>Did smoking make you feel more awake?</td>
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<tr>
<td>Did smoking make you feel less irritable?</td>
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<td>Did smoking help you concentrate?</td>
<td></td>
<td></td>
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<tr>
<td>Did smoking reduce your hunger for food?</td>
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<tr>
<td>Did smoking make you dizzy?</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Did smoking make you nauseous?</td>
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<tr>
<td>Did smoking immediately relieve your craving for a cigarette?</td>
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<td></td>
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<td></td>
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<tr>
<td>Did you enjoy smoking?</td>
<td></td>
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</tbody>
</table>

Thank you for taking the time to complete this survey, your responses are extremely useful and will help us to improve future physical activity programs in prisons.

If you have any questions at all then please do not hesitate to get in touch with your trainer.
The variables measuring pulse rate at the start and end of the workshops were the only pair of MOT variables that were both normally distributed, so the differences between these two means were tested using a paired samples t-test. The remaining nine variables measuring participants’ MOT results were not normally distributed, according to the Kolmogorov-Smirnov test, and so were analysed using non-parametric tests. The preferred test for comparing means between dependent samples with non-parametric data is the Wilcoxon Signed Rank Test. In order to satisfy the third assumption for applying this test the distribution of differences between the two sets of means should be symmetrical, so differences between the mean scores at the start and end of the workshops were plotted on a series of boxplots which were reviewed to ensure they were symmetrically distributed. This also provided a further opportunity to ‘clean’ the data by identifying any extreme scores that were likely to be a result of errors in data recording or entry. All of the boxplots were satisfactorily symmetrical and so a Wilcoxon Signed Rank Test was conducted on all pairs of means.

The Wilcoxon Signed Rank Test indicated that MOT scores taken at the end of the workshops were significantly lower than MOT scores taken at the start of the workshops on five of the variables, namely, body weight (Z = -1.932, p = .053), body fat percentage (Z = -3.832, p < .000), basal metabolic rate (Z = -2.183, p = .029) and bone density (Z = -2.250, p = .024). Whilst the following variables saw a significant increase from the start to the end of the workshops; water level percentage (Z = -2.351, p = .019), muscle mass (Z = -2.881, p = .004) and lung capacity (Z = 6.654, p < .000). Although the remaining three variables did not see a significant change they did all move in a positive direction across the fortnight, with heart rate and pulse rate decreasing (Z = -1.885, p = .059 and Z = -1.164, p = .244, respectively) and blood oxygen levels increasing (Z = -7.72, p = .440).
end (M = 1.78) follow-up (M = 2.11). The smoker more dizzy (M = 2.12) end (M = 2.44) follow-up (M = 2.44).

Did not immediately relieve the craving (M = 4.33) end (M = 3.31). Did not enjoy smoking as much (M = 3.22) end (M = 2.22) follow-up (M = 3.22).

Smoking help concentrate (M = 2.11) end (M = 1.78) follow-up (M = 2.56). Reducer hunger start (M = 2.22) end (M = 1.89) follow-up (M = 2.22).

Smoking satisfaction (M = 3.00) end (M = 2.60) follow-up (M = 3.10).

Follow-up data was then included to identify any significant changes in score across the three time points. Friedman test revealed no significant differences in scores across the time points for one of the CEQ measures which measured how nauseous cigarettes made participants feel (ꭓ²(2) = 6.583, p = 0.037). Post-hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at p < 0.017.

Median scores for nausea associated with cigarettes at the start, end and follow-up were 1, 2 and respectively. There were no significant differences between the end and follow-up scores (Z = -2.952, p = 0.003). However, there was no significant difference between the follow-up scores and either the start or end scores (Z = -0.227, p = 0.800, respectively). There were only 12 responses to this item returned at follow-up, and the mean score for nauseousness dropped from 2.07 to 2.32.

The Friedman test revealed significant differences across the three time points for smoking increased across the three time points; start (M = 2.58), end (M = 3.31) and follow-up (M = 3.42).

The number of cigarettes smoked across the three time points was tested using a Friedman test revealing significant differences across the five domains (ꭓ²(2) = 28.116, p < 0.001). Post-hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction (p < 0.017) showed no significant difference between the number of cigarettes smoked at the start and at follow-up (Z = -2.952, p = 0.003). However, the number of cigarettes smoked at the end of the workshop was significantly lower than the number smoked at the start and at follow-up (Z = -4.419, p = 0.000007 and Z = -2.201, p = 0.013, respectively).

Technical Appendix C. Steps taken to run statistical analysis on responses to HRQL for all participants, and split into smokers and non-smokers. Analyses were conducted to test for any differences in health related quality of life across the three time points (start, end and follow-up). Firstly, the standardised residuals for each set of scores were tested for normality using a histogram and Shapiro-Wilk tests, the residuals across all five domains were skew, therefore a non-parametric Friedman test was applied to test for differences.

ALL PARTICIPANTS

The Friedman test revealed significant differences in scores across the time points for three of the five domains; vitality (ꭓ²(2) = 23.395, p = 0.000008), emotional wellbeing (ꭓ²(2) = 35.880, p = 0.016) and general health (ꭓ²(2) = 28.156, p = 0.027). Post-hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at p < 0.017.

Physical health at all three time points; between the start and end (Z = 2.759, p = 0.006), the start and follow-up (Z = -2.832, p = 0.005) and the end and follow-up (Z = -3.068, p = 0.0012). Post-hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at p < 0.017.

Non-smokers

The Friedman test revealed significant differences in scores across the time points for only two of the five domains; emotional wellbeing (ꭓ²(2) = 14.606, p = 0.002) and general health (ꭓ²(2) = 18.12, p = 0.00112). Post-hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at p < 0.017.

Median vitality scores at the start, end and follow-up were 68.75, 75 and 50, respectively. There were no significant differences between these scores.

Mean physical functioning scores at the start, end and follow-up were 92.86, 100 and 92.86, respectively. There were no significant differences between these scores.

Mean emotional wellbeing at the start, end and follow-up were 70, 85 and 40, respectively. There were significant differences between scores for emotional wellbeing at all three time points; between the start and end (Z = -3.984, p = 0.000103), the start and follow-up (Z = -3.023, p = 0.00250) and the end and follow-up (Z = -2.805, p = 0.005).

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In summary, there were significant differences between scores for general smoking cessation across the three time points. Friedman test was significant (ꭓ²(2) = 6.421, p = 0.040). A post-hoc analysis with a Wilcoxon signed-rank tests and Bonferroni correction (p = 0.017) supported the significant difference between the start and end scores (Z = -2.952, p = 0.003). However, there was no significant difference between the follow-up scores and either the start or end scores (Z = -0.227, p = 0.800, respectively). There were only 12 responses to this item returned at follow-up, and the mean score for nauseousness dropped from 2.07 to 2.32.

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health at all three time points; between the start and end (Z = -3.418, p = 0.001), the start and follow-up (Z = -3.592, p = 0.001) and the end and follow-up (Z = -2.850, p = 0.004).

SMOKERS VS NON-SMOKERS

A series of Mann-Whitney U tests compared the difference in scores for all five domains of HRQL at all three time points between smokers and non-smokers. Emotional Wellbeing at the start was the only variable to differ significantly between smokers and non-smokers (U = 318.500, p = 0.009, r = -0.31).

Technical Appendix D. Steps taken to run statistical analysis to identify differences between completers and non-completers

A series of Mann-Whitney U tests were run to test for any significant differences between completers and non-completers (those who did not provide an end survey) in terms of a series of variables; age, readiness to exercise, weight; body fat; muscle mass; heart rate; cigarettes smoked per day; all measures of exercise motivation; and all three basic psychological needs in relation to exercise. Levene’s test confirmed homogeneity of variance between the majority of pairs, the distribution of six variables differed significantly from one another, so a log transformation was conducted on these and the transformed variables were used to test for any significant differences (age, weight, competence, introjected motivation, social reasons for exercise, nimbleness, physical functioning, vitality and general health).