

**The Perceived Benefits of Sport Based
Interventions on the Psychological
Well-being of People in Prison**

David Woods

BSc Psychology

MSc Organisational Psychology

MSc Sport and Exercise Psychology

Faculty of Life and Health Sciences

Ulster University

A thesis submitted for the award of Doctor of Philosophy

May, 2018

I can confirm that the word count of this thesis is less than 100,000 words.

Table of Contents

Acknowledgements	iv
Abstract	v
Abbreviations	vii
Notes on Access to Contents	ix
List of Tables	x
List of Figures	xi
Peer Reviewed Articles	xii
Research Conference Publications	xii
Chapter 1. Introduction	1
1.1 The Purpose of Prison and Prisoner Health and Well-being...	2
1.2 Psychological Well-being	7
1.3 Psychological Well-being and Mental Health.....	9
1.4 Summary and Rationale for the Current Programme of Research.....	12
1.5 Aims and Objectives.....	15
Chapter 2. A Systematic Review of the Perceived Benefits of Sport Based Interventions on the Psychological Well-being of People in Prison	17
2.1 Abstract.....	18
2.2 Introduction.....	19
2.3 Method.....	24
2.4 Results.....	29
2.5 Discussion.....	45
Chapter 3. Methodology	51
3.1 Introduction.....	52
3.2 Methods.....	53
3.3 Data Analysis Process.....	58
3.4 Ethical Procedures and Access to Prisons.....	62
3.5 Study Sample Frames and Procedures.....	63
3.6 Reflexivity.....	68

Chapter 4.	How Sport Based Interventions Benefit the Psychological Well-being of People in Prison	79
4.1	Abstract.....	80
4.2	Introduction.....	82
4.3	Method.....	87
4.4	Results.....	88
4.5	Discussion.....	105
Chapter 5	The Perceived Benefits of Everybody Active 2020: A Sport Based Intervention at Hydebank Wood Secure College	117
5.1	Abstract.....	118
5.2	Introduction.....	120
5.3	Method.....	124
5.4	Results.....	132
5.5	Discussion.....	152
Chapter 6.	The Perceived Benefits of ‘State of Mind Sport’: A Pilot Program at HMP Risley	162
6.1	Abstract.....	163
6.2	Introduction.....	164
6.3	Method.....	169
6.4	Results.....	176
6.5	Discussion.....	187
Chapter 7.	General Discussion	198
7.1	Synthesis of Main Findings.....	199
7.2	Limitations.....	217
7.3	Recommendations and Conclusions.....	220
References	226
Appendices	249

1. Acknowledgements

I would like thank and gratefully acknowledge the support and guidance of the following individuals and organisations who have contributed to the completion of this thesis.

My supervisors Dr. Gavin Breslin and Prof. David Hassan for guiding and challenging me in equal measure; for encouraging my independence of thought; and for offering a calming sense of perspective during the moment(s) of madness and doubt. Thanks are also given to the Department for Employment and Learning for their scholarship award which supported me in the completion of this research.

The various organisations within the criminal justice sector and the community interest charities who played an integral role in facilitating this research. In particular, Hydebank Wood Secure College and HMP Risley, and the participants therein who gave of their time and shared their experiences candidly with me.

My mum for being a constant source of inspiration and my dad for instilling in me a drive and determination to get the job done right.

Finally, I am forever grateful to David and Patrick, and to Derv. A famous All Black once said, “There are no crowds lining the extra mile”, but when I looked up you were there. Always there. Always supporting. Thank you.

2. Abstract

The aim of this doctoral programme of research, consisting of four separate studies, was to determine the perceived benefits of sport based interventions on the psychological well-being of prisoners. A methodical review was undertaken in Study 1 to assess the current evidence base and identify subsequent research questions to be addressed. Study 2 then focused on increasing knowledge of how and why sport based interventions can positively impact on psychological well-being within prison. Studies 3 and 4 were conducted in response to the need for robust prison based intervention studies, adopting specific well-being measures and follow-up, to test for immediate and long-term impacts on psychological well-being.

Study 1 established positive impacts on psychological well-being within prison in 12 from 14 sport based interventions. However inconsistent definitions of psychological well-being, measurement inconsistencies and limited follow-up led to the conclusion that sport can have positive effects, but raised questions regarding how and under what conditions? There was also a consistent absence of psychological theory to explain and help replicate any positive impacts of sport observed.

In response to the limitations highlighted in Study 1, Study 2 engaged with 16 stakeholders responsible for the design, delivery and oversight of sport based interventions in prison. A thematic framework was presented, linked to three psychological theories, to increase knowledge of how sport based interventions within prison can effectively impact upon psychological well-being.

In Study 3 the effect of a 6-week sport based intervention in prison was considered. Positive effects on short-term psychological well-being during participation was shown, but failed to demonstrate any substantial longer term

impacts. Study 3 also identified environmental barriers to effective implementation of sport based interventions, resulting in prisoner frustration at times. The inclusion of psychological theory highlighted in Study 2, and incorporated into Study 3, was inconclusive and requires further investigation.

In response to the feasibility issues identified, Study 4 focused on testing the perceived benefits of an alternative short form sport-based intervention, aimed at directly improving mental health and psychological well-being within the male prison population. Statistical analysis revealed a short-term positive impact on mental health awareness. Results from the thematic analysis of focus group data also revealed participants perceived the intervention as a novel, appropriate and engaging format, and reported increased intentions to seek help and sense of hope for the future. No long-term effects were observed at 8-week follow-up.

Based on the evidence acquired during this programme of research, it was concluded that sport based interventions in prison had short term positive impacts on psychological well-being. Suggestions are made for conducting studies to test the long-term impacts of well-designed sport based interventions in prison populations.

3. Abbreviations

WHO	World Health Organisation
MHC	Mental Health Continuum
SBI	Sport Based Intervention
QoL	Quality of Life
USDHSS	United States Department of Health and Social Services
SfD	Sport for Development
EU	European Union
NAO	National Audit Office
HMPPS	Her Majesty's Prison and Probation Service
HIPP	Health in Prisons Project
JCHR	Joint Committee on Human Rights
NI	Northern Ireland
UK	United Kingdom
PI	Physical Instructor
SCH	Secure Childrens Home
YOI	Young Offenders Institution
STC	Secure Training Centre
RCT	Randomised Control Trial
CIC	Community Interest Charity
ORECNI	Office for Research Ethics Committee, Northern Ireland
NHS	National Health Service
R&D	Research and Development
NIPS	Northern Ireland Prison Service
PO	Prison Officer

PTI	Physical Training Instructor
ROTL	Release on Temporary License
BPNT	Basic Psychological Needs Theory
SDT	Self Determination Theory
PEI	Physical Education Instructor
SWEMWBS	Short Warwick Edinburgh Mental Well-being Scale
OPHI	Oxford Poverty and Human Development Initiative
Sport NI	Sport Northern Ireland
YOC	Young Offender Centre
EBA2020	EveryBody Active 2020
SOMS	State of Mind Sport
UREC	University Research Ethics Committee
NRC	National Research Committee
NOMS	National Offender Management Service
BRS	Brief Resilience Scale
MAKS	Mental Health Knowledge Schedule
RIBS	Reported and Intended Behaviour Scale
SPSS	Statistical Package for the Social Sciences
NASDC	National Association of Sport for the Desistance of Crime

4. Notes on Access to Contents

"I hereby declare that with effect from the date on which the thesis is deposited in Research Student Administration of Ulster University, I permit:

1. The Librarian of the University to allow the thesis to be copied in whole or in part without reference to me on the understanding that such authority applies to the provision of single copies made for study purposes or for inclusion within the stock of another library.
2. The thesis to be made available through the Ulster Institutional Repository and/or EThOS under the terms of the Ulster eTheses Deposit Agreement which I have signed.

IT IS A CONDITION OF USE OF THIS THESIS THAT ANYONE WHO CONSULTS IT MUST RECOGNISE THAT THE COPYRIGHT RESTS WITH THE AUTHOR AND THAT NO QUOTATION FROM THE THESIS AND NO INFORMATION DERIVED FROM IT MAY BE PUBLISHED UNLESS THE SOURCE IS PROPERLY ACKNOWLEDGED".

5. List of Tables

Chapter 2: Study 1

2.1	PICOS Elements for the Review Protocol and Associated Search Keywords.....	25
2.2	Summary of Quality Assessment and Risk of Bias.....	31
2.3	Quality assessment tool with the Qualsyst tool (Quantitative).....	34
2.4	Quality assessment tool with the Qualsyst tool (Qualitative).....	34
2.5	Characteristics of the selected intervention studies.....	37
2.6	Results of included intervention studies examining impact on psychological well-being.....	41

Chapter 3: Methodology

3.1	Braun and Clarke's (2006) six-step process for thematic analysis.....	59
3.2	Study 2, Stakeholder Participants.....	64
3.3	Study 3, Prisoner Participants.....	66
3.4	Study 4, Frequencies for Offence Committed and Age Range.....	68

Chapter 4: Study 2

4.1	Stakeholder Participants.....	87
4.2	Emergent Themes and Sub-Categories.....	89

Chapter 5: Study 3

5.1	Participants and Data Collection Timepoints.....	126
5.2	Participants' SWEMWBS Scores.....	132
5.3	Participants' BPNS (Autonomy) Scores.....	134
5.4	Participants' BPNS (Competence) Scores.....	135
5.5	Participants' BPNS (Relatedness) Scores.....	135
5.6	Participants' Sport Climate Questionnaire (Autonomy Supportive Environment) Scores.....	136
5.7	Emergent themes and sub-categories from interviews with participants.....	137

Chapter 6: Study 4

6.1	Frequencies for Offence Committed and Age Range.....	170
6.2	Outcome Measure Mean Scores and Standard Deviations (Pre/Post).	176
6.3	Outcome Measure Mean Scores and Standard Deviations (Pre/Post/8-Week Follow-up).....	179
6.4	Emergent Focus Group Themes.....	180

6. List of Figures

Chapter 1: Introduction and Theoretical Framework

1.1 Mental Health Continuum (MHC),..... 9

Chapter 2: Study 1

2.1 Flow Chart of Study Selection Process using PRISMA..... 30

8. Peer Reviewed Articles

The first two articles listed below relate to Studies 1 and 2 within this thesis. The third article published was a reflection on my personal journey from my MSc studies to the decision to complete this PhD.

Woods, D., Breslin., G & Hassan, D. (2017) Positive Collateral Damage or Purposeful Design: How Sport-Based Interventions Impact the Psychological Well-Being of People in Prison. *Mental Health and Physical Activity*. <https://doi.org/10.1016/j.mhpa.2017.09.005>

Woods, D., Breslin., G & Hassan, D. (2017) A systematic review of the impact of sport-based interventions on the psychological well-being of people in prison. *Mental Health and Physical Activity*, 12, 50-61.

Woods, D., & Kearney, C. (2016) To live and learn: personal reflections on adult learning for postgraduates through the framework of meta-cognition. *Perspectives on Pedagogy and Practice*, 7, 111-117.

9. Research Conference Publications

Woods, D., Hassan, D., & Breslin, G. (2017). A Thematic Analysis of the Impact of a Sport Based Intervention on the Psychological Well-being of People in Prison, presented at Faculty of Life and Health Sciences, Post-graduate Conference, Ulster University, Coleraine, 2017.

Woods, D., Hassan, D., & Breslin, G. (2017). A Conceptual Framework for the use of Sport Based Interventions to Impact the Psychological Wellbeing of People in Prison, presented at Prison and Justice Conference, Queen's University, Belfast, 2017.

Woods, D., Hassan, D., & Breslin, G. (2017). A Thematic Analysis of How Sport Based Interventions can Impact the Psychological Well-being of People in Prison, presented at Northern Ireland British Psychological Society Annual Conference, Ballymascanlon House Hotel, 2017.

Woods, D., Breslin, G. & Hassan, D. (2016). A Systematic Review of the Impact of Sport Based Interventions on the Psychological Well-being of Prisoners, presented at Division of Sport & Exercise Psychology Annual Conference, Cardiff, 2016.

Woods, D. (2015). Can't Run, Won't Run... Might Run: Case Study of a Physical Activity Consultation, presented at Northern Ireland British Psychological Society Annual Conference, Armagh, 2015.

Woods, D., Breslin, G., & Meade, M.M. (2014). Elite Athlete Receptivity to Sport Psychology Consulting on the Island of Ireland, presented at Northern Ireland British Psychological Society Annual Conference, Belfast, 2014.

1. Introduction

The primary aim of this chapter was to provide an overview of the academic peer reviewed literature related to the psychological well-being and mental health of the prison population. The chapter also defines psychological well-being, providing a description of its constituent parts and examines its relationship with mental health. Finally a rationale is provided for the research studies conducted in Chapters 2, 4, 5 and 6.

1.1 The Purpose of Prison and Prisoner Health and Well-being

The Purpose of Prison

Traditionally the primary purpose of prisons centred around separation and confinement from society, punishment for crime, correction and rehabilitation to the community (Watson, Stimpson & Hostick, 2004). The inclusion of rehabilitation as a primary purpose is an important one which developed during the 20th Century and was subsequently considered to be the most pertinent purpose in relation to the other three, which had “no moral legitimacy, scientific standing, or pragmatic benefit” (Cullen and Gilbert, 2012, pg.4). The more recent focus on rehabilitation is illustrated by Spencer (2007) who noted that the prison service which emerged when the death penalty was abolished, and when convicted offenders stopped being transported overseas, was one that focused on punishment (retribution), incapacitation and deterrence. However, even with the more modern view that a core part of the remit of prisons is focused on prisoner rehabilitation, prisons have been slow to place primary concern, and focus efforts, on the health of the prison population. In recognition of this Spencer (2007) noted that the need for prioritising security and discipline can cut across the perception of individual prisoners as patients.

In response to the lack of prioritisation of prisoner health, there have been repeated calls for prisons to be increasingly concerned with the health and well-being of those within their care (Santora, Espnes & Lillefjell, 2014; World Health Organisation (WHO), 2008; 1999). The WHO (2007), in publishing their guide to Health in Prisons, noted that it is not sufficiently recognised that the prison service is a public service, meeting some fundamental needs of society, such as the need to feel safe and to feel that crime is sufficiently punished and reparations made. It was suggested that as a public service, the focus of prisons could be extended to serve the public need better by recognising that:

- Good prison health is essential to good public health;
- Good public health will make good use of the opportunities presented by prisons; and
- Prisons can contribute to the health of communities by helping to improve the health of some of the most disadvantaged people in society.

Prisoner Mental Health and Psychological Well-being

A recent National Audit Office (NAO) report (2017), on Her Majesty's Prison and Probation Service (HMPPS), reported that there are no reliable data on the prevalence of mental ill-health within the prison population. However, it is commonly estimated that within the United Kingdom up to 90% of prisoners aged over 16 years are mentally unwell (Durcan, 2016). The NAO criticisms of this estimate are based on the research dating back two decades (Singleton, Meltzer, Gatward, Coid & Deasy, 1998) and covers a broad definition of mental illness. Fraser, Gatherer & Hayton (2009) suggest that conditions such as depression, anxiety

and stress-related conditions affect the majority of prisoners, whilst Leigh-Hunt & Perry (2015) present estimates of prisoners suffering from depression and anxiety ranging from 30% to 75%, depending on methodology and definitions used. Blaauw, Roesch and Kerkhof (2000), following their analysis of mental disorders in European prisons, suggested the following categorisation: between 6-12% of the prison population would require transfer or urgent psychiatric attention; between 40-50% would require assistance from health care services; and between 40-60%, would benefit most from mental health promotion. Therefore, although definitive figures are hard to ascertain, the research has consistently demonstrated a higher prevalence of poor mental health and psychological well-being within the prison population when compared to those within the community (Hassan et al., 2011; Lancet, 2017; Steadman, Osher, Robbins, Case & Samuels, 2009; WHO 2014).

The majority of prisoners will suffer from, or have been subjected to, adverse health determinants such as poor educational attainment, illiteracy, substandard housing, high unemployment and childhood abuse or neglect (MacNamara & Mannix-McNamara, 2014; WHO, 1999). This increased vulnerability of prisoners to mental ill-health, is then exacerbated within hostile prison conditions (Fraser, Gatherer & Hayton, 2009; Lancet, 2017). Conditions such as over-crowding, interpersonal distrust, bullying, marginalisation, social withdrawal, a decreased sense of self-worth, stigma, discrimination and a lack of purposeful activity and/or privacy can have a detrimental effect. (Ferszt, Salgado, DeFedele & Leveillee, 2009; WHO, 2007; Wildeman & Wang, 2017).

Prisoners with comparatively lower mental health are also at greater risk of suicide, self-harm, violence and victimisation (Fazel, Hayes, Bartellas, Clerici & Trestman, 2016). In 2016, the Prisons and Probation Ombudsman found that 70% of prisoners who had committed suicide between 2012 and 2014 had mental health needs. In England and Wales, the number of reported self-harm incidents in 2016 (40,161) marked an increase of 73% between 2012 and 2016. There were also 120 self-inflicted deaths reported in prison in 2016, almost twice the number in 2012, and higher than any previous year on record. These statistics have led the NAO to conclude that mental health and well-being in prisons has declined over the same timeframe (NAO, 2017).

Despite being faced with such startling suicide and self-harm statistics, and the hostile environmental and social conditions outlined within prisons, there remains scope for optimism in relation to health benefits for prisoners. It has been highlighted that a unique opportunity exists to implement targeted health promotion activities within prison to those with limited experience of accessing similar activities prior to their incarceration (The Lancet, 2017; MacNamara & Mannix-McNamara, 2014). Dumont, Brockmann, Dickmann, Alexander and Rich (2012), reported that within the United States (US), contact with prison healthcare represents the first experience of accessing preventative and chronic medical care for many adults.

In response to the prevalence of poor mental and physical health of those within custodial care, and acknowledging the equivalence principle whereby

prisoners should receive the same level and quality of basic health services as in the community, the WHO established the Health in Prisons Project (HIPP) (WHO, 1995). HIPP advocates the promotion of a whole-prison approach to the successful implementation of health promotion and reforming interventions (WHO, 2007; WHO, 1995). Regarding mental health and psychological well-being specifically, the Trenčín Statement highlighted that “promoting mental health and well-being should be central to a prison’s health care policy” (WHO, 2007, pg. 6).

Reflecting on the realisation of health promoting prisons, Woodall (2016) commented that progress remains slow and points to a weakening of commitment, both of individual nations and the WHO, and a “worrying negative trajectory” of support (pg. 619). A deficit of prison based evaluative studies endorsing the dividends of a health promoting prison is highlighted as a potential contributing factor to this weakening of commitment. Reversing this trajectory is critical, not just for the psychological well-being of those incarcerated, but for society also. The realisation of good health and well-being are recognised as the key criteria to successful prisoner rehabilitation and reintegration into the community (Hayton, 2007).

A multitude of key services, partnerships and actions exist within the criminal justice system to potentially meet the mental health needs of prisoners and improve their psychological well-being (Durcan, 2016). However, many prisoners who stand to benefit from those services, do not wish to engage with treatment (Stewart, 2008). Access to sport and fitness facilities are judged to have strong potential to positively impact prisoners’ psychological well-being (WHO, 1999), and

research has demonstrated that sport can offer a more acceptable means to engage prisoners in health and well-being promotion (Meek, Champion & Klier, 2012, Meek & Lewis, 2014b).

1.2 Psychological Well-being

Psychological well-being is defined as experiencing positive psychological functioning, life-satisfaction and an ability to develop and maintain mutually benefiting relationships (Stewart-Brown & Janmohamed, 2008). Psychological well-being and its relationship with mental health has been the focus of increased empirical research during the previous two decades (Cooke, Melchert & Connor, 2016). Ryan and Deci (2001) have suggested this increased focus has resulted from the wider acceptance that psychological well-being and mental health is not simply defined by the absence of ill-being. This view is well embedded into empirical research in the field of well-being and psychology (Seligman & Csikszentmihalyi, 2000; Tennant et al., 2007). However, it is worth highlighting that it only gained wider recognition, and subsequently developed at pace from the 1960s onwards (Ryan & Deci, 2001). Prior to this, the focus of psychology was on treating and reducing psychopathologies (Cowen, 1991; Keyes & Annes, 2009; Keyes, 2002), despite calls from those who championed a more positive approach (Jahoda, 1958; Smith, 1959).

As the focus of mental health has evolved from treating psychopathologies to the promotion of psychological well-being, academic debates have emerged on whether higher levels of psychological well-being are derived from a focus on what are labeled hedonia and eudaimonia (Huta, 2016). Hedonia is concerned with

experiencing positive affect, carefreeness and subjective life satisfaction, and eudaimonia is concerned with feelings of meaning, value, accomplishment, self-realisation and good relationships (Huta, 2016; Stewart-Brown & Janmohamed, 2008). Alternatively, Steger and Shin (2012), succinctly surmise, hedonia equates to pleasure, and eudaimonia to mattering.

The debate as to whether achieving optimal psychological well-being is best served through the attainment of hedonic or eudaimonic satisfaction dates back to the writings of early Greek philosophers in the 4th century BC; Aristotle championing eudaimonia, whilst Aristippus argued only hedonic pleasures were necessary and worthwhile pursuits. Parallel differences in approach can then be traced to the work of Freud (1920), contrasting with that of Jung (1933) and Maslow (1968). Similar contrasts continue through to contemporary researchers such as Ryff (1989) and Kashdan, Biswas-Diener & King (2008). The former argues for a primary focus on the eudaimonic contribution to psychological well-being, whilst the latter champion the hedonic perspective. Although their respective hierarchy will continue to be debated, this thesis adopts the view that both hedonia and eudaimonia are to be strived for to experience optimal psychological well-being (Huta, 2016; Keyes & Annas, 2009; Ryan and Deci, 2001; Stewart-Brown & Janmohamed, 2008).

1.3 Psychological Well-being and Mental Health

Researchers have demonstrated that those who report experiencing both hedonia and eudaimonia exhibit higher degrees of psychological well-being (Huta & Ryan, 2010; Peterson, Park & Seligman, 2005), and higher degrees of mental health (Keyes, 2002). Keyes, reported that mental illness and mental health, although highly correlated, belonged to separate continua, and presented a mental health continuum (MHC). The MHC incorporates hedonic and eudaimonic components of psychological well-being, respectively referred to within the model as positive feelings and positive functioning, and consists of three levels of mental health, flourishing, moderate and languishing (Figure 1.1). Feelings and functioning often overlap and are considered consistent. For example, feeling positive about functioning well in one's life, and vice versa. However, this over-lap does not render their distinction redundant (Keyes & Annas, 2009; Huta & Ryan, 2010).

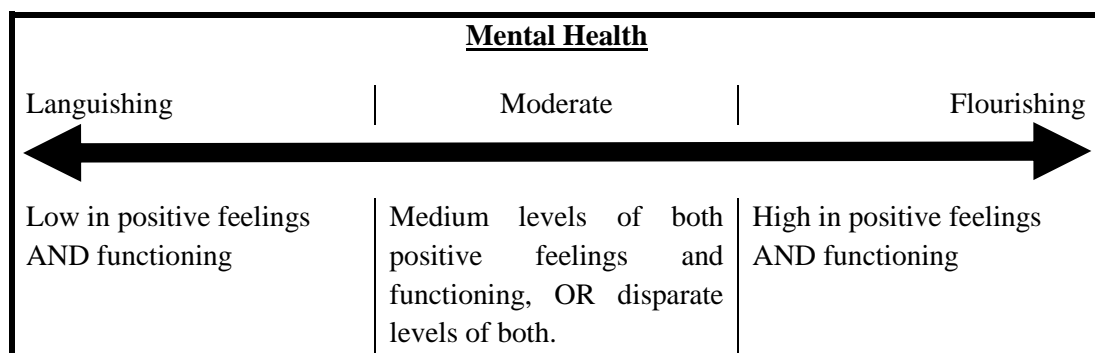


Figure 1.1: Mental Health Continuum (MHC) (Keyes, 2002)

Whilst acknowledging the important role that both positive feelings (hedonia) and positive functioning (eudaimonia) play in achieving optimum levels of psychological well-being and mental health, researchers have sought to identify their unique contributions. Based on the MHC, in particular the 'moderate' mental health

category, and using data from the Midlife in the US survey (1995), Keyes and Annas (2009) suggest that some level of distinction can be made regarding the effect of positive feelings and positive functioning on mental health. Their research demonstrated that those with moderate mental health, but exhibiting higher levels of positive functioning and lower levels of positive feeling, exhibited lower levels of mental illness, than those with low positive functioning, but high positive feeling. This would therefore suggest that moderate levels of psychological well-being, consisting of high positive functioning and low positive feeling (rather than the opposite composition), creates a stronger buffer to mental illness. Similarly, Huta (2016), a strong advocate for the inclusion of both positive feelings and functioning for optimal psychological well-being, states that if forced to advocate a hierarchy, eudaimonia would be prioritised. In defending this, Huta surmises that whilst hedonia helps to achieve a positive mental state and serves to “charge up the psychological battery”, eudaimonia elevates a person to a higher level of functioning, and that in the end “it’s about more than getting by; it’s about getting somewhere.” (Huta, 2016, pg.10).

As higher levels of psychological well-being can act as a buffer to mental illness (Keyes & Annas, 2009), research which identifies and tests interventions that aim to improve psychological well-being is welcomed. Interventions can be targeted at both the individual level or potentially specific population levels (Huppert, 2009). The prison population is one in particular which stands to benefit greatly from targeted efforts to reduce their risk of mental illness through targeted interventions. An overview of the recent relevant literature on psychological well-being and mental

health within the prison population is therefore presented below in Section 1.3, prior to addressing the potential use of suitable interventions in response.

Psychological Well-being and Sport Based Interventions in Prison

The provision of sport and exercise is delivered throughout the secure estate with prisons required to fulfil a mandatory obligation to give prisoners the opportunity to participate in physical activity for at least one hour per week (or two hours for those under 21 years old) (Ministry of Justice (MoJ), 2011). The MoJ physical education specification also defines the following key service outcomes:

- The physical health and wellbeing needs of prisoners are met, in part, through Physical Education (PE)
- PE contributes to the safety, order and control within prisons
- The life skills of prisoners are developed, in part, through PE

Further to the above, the Department of Justice, Northern Ireland (DoJNI) states that the sport and recreation section within each prison can actively promote good relationships and partnerships with governing sports bodies such as The Sports Council and with other providers within establishments such as the probation service, education, and training and employment sections. Their role is to contribute to the development of the individual prisoner and to assist them in setting goals and achieving their aims through sport and related activities. (DoJNI, nd).

Neither the MoJ nor DOJNI policies and/or guidelines referenced make specific reference to appropriate research on the perceived benefits of sport in prison. However, outcomes from non-prison based research provide grounds for optimism for sport and fitness facilities to provide interventions which positively impact prisoner's psychological well-being. Positive links exist between participation in sport and/ or physical activity, and positive mental health and psychological well-being (Biddle, Mutrie & Gorley, 2015; Lancet, 2016; Mason, Curl & Kearns, 2016; WHO, 2016), with specific improvements typically reported for related outcome measures such as self-esteem, self-efficacy and self-concept (Bailey, 2005; Biddle & Asare, 2011; Clark, Camiré, Wade & Cairney, 2015; Craft, 2005; Ossip-klein et al., 1989; Singh et al., 2005). Also, taking into account the strong negative correlation between mental ill-being and psychological well-being (Keyes & Annas, 2009), researchers have also demonstrated a consistent relationship between increased involvement in sport and/ or physical activity and decreased depression, anxiety and stress (Biddle & Asare, 2011; Gordon, McDowell, Lyons & Herring, 2017; Rethorst, Wipfli, & Landers, 2009). To increase the knowledge base of whether similar outcomes can be achieved within the prison environment, a systematic review of sport-based interventions (SBIs) and their impact on the psychological well-being of people in prison is reported in Chapter 2.

1.4 Summary and Rationale for the Current Programme of Research

Greater levels of psychological well-being are indicative of an individual experiencing high levels of positive affect, life satisfaction and positive relationships; accompanied with a strong sense of meaning to their life, having recorded

accomplishments that they value and that matter to the individual (Huta, 2016). High levels of psychological well-being are therefore reflective of multiple positive facets of daily life, the attainment of which are to be strived for as positive goals in their own right. However, achieving high(er) levels of psychological well-being has the additional benefit of acting as a buffer to mental illness (Keyes & Annas, 2009). Therefore, although mental health and mental illness are complex and dynamic phenomena (Faulkner and Taylor, 2009), the prospect exists of better protecting individuals from poor mental health through interventions aimed at increasing their psychological well-being. This can be targeted at both the individual level or potentially specific population levels (Huppert, 2009).

The prison population has consistently demonstrated lower levels of mental health and well-being in comparison to community populations (Lancet 2017; WHO, 2014). This is reflected in critically high levels of self-harm and suicide (NAO, 2017). These trends in poor mental health and psychological well-being have persisted despite calls from the WHO for mental health and well-being to be central to prison healthcare policy a decade ago (WHO, 2007). Related interventions within the prison have historically focused on treating acute pathologies rather than formulating preventative measures which might buffer against the negative impacts on mental health and psychological well-being prevalent in prisons (De Viggiani, 2007). The identification of suitable prison-based interventions, supported with evidence based outcomes, to drive improvements in the psychological well-being of people in prison and reduce the prevalence of mental illness are therefore timely (Fazel et al., 2016; Joint Committee on Human Rights (JCHR) 2017; Woodall, 2016).

Non prison-based research into the use of SBIs to increase psychological well-being and mental health has consistently demonstrated benefits. Specific improvements often reported are decreased depression, anxiety, stress (Lancet, 2016; WHO 2016) and increases in self-esteem, self-efficacy and self-confidence (Biddle & Asare, 2011; Lubans et al., 2016). However, researchers have identified the need for a more thorough examination of the mediating factors which might explain reported positive effects on psychological well-being and their applicability across various populations, ages and environments (Biddle & Asare, 2011; Jones, Edwards, Bocarro, Bunds & Smith, 2017; Lubans et al., 2016; Turnnidge et al., 2014). Hartmann (2003, pg. 134), for example, has suggested that “the success of any sport based social intervention program is largely determined by the strength of its’ non-sport components”. Sport based interventions are also consistently criticised for lacking in theoretical foundations (Haudenhuyse, Theeboom, & Skille, 2014; Hartmann, 2001; Jones et al., 2017). This is directly at odds with advice from the Medical Research Council (MRC) which advises the inclusion of health behaviour change theory to guide the design and evaluation of interventions (Moore et al., 2015).

Based on the evidence of benefits delivered through SBIs as highlighted above, sport within prison could also provide an alternative platform for the delivery of interventions aimed at improving psychological well-being. However, research on sport within prison is nascent (Meek and Lewis, 2014a; Gallant et al., 2015). In recognition of the emergent nature of research in this area, Chapter 2 provides a

systematic review of the relevant literature to establish the current evidence base and identify further research questions.

1.5 Aims and Objectives

The primary aim of this thesis was to determine the perceived benefits of sport based interventions on the psychological well-being of people in prison. To achieve this aim, four research studies adopting a combination of quantitative and qualitative methodologies with each building on the previous, were conducted across the UK. Individual study objectives were:

Study 1: i) To systematically review the perceived benefits of sport based interventions on the psychological well-being of people in prison; ii) to identify whether psychological theory of health behaviour change was included in the design and evaluation of interventions; and iii) to identify the inclusion and perceived benefits of additional non-sporting components (see Chapter 2, Page 17).

Study 2: i) To determine how SBIs can positively impact the psychological well-being of people in prison and present the results within a thematic framework; and ii) to link the framework to existing psychological theories of health behaviour change (see Chapter 4, Page 79).

Study 3: i) To determine the immediate and longer term perceived benefits of an SBI within prison on a specific outcome measure of psychological well-being; ii) to test for the mediating effects of psychological theory identified in Study 2; and iii) to consider the feasibility of delivering an SBI within a prison environment (see Chapter 5, Page 117).

Study 4: i) To determine the perceived benefits of an SBI designed to improve mental health awareness of male prisoners; ii) To determine if knowledge of mental health, intentions to engage with those suffering mental illness, psychological well-being and resilience increases, in comparison to a control group; and iii) to assess the feasibility of the intervention within the prison environment (see Chapter 6, Page 162).

2. A Systematic Review of the Perceived Benefits of Sport Based Interventions on the Psychological Well-being of People in Prison

2.1 Abstract

Purpose: The primary aim of this study was to review the perceived benefits of sport-based interventions (SBI) on the psychological well-being of people in prison. Secondary aims were to identify whether psychological theory of health behaviour change was included in the design and evaluation of interventions, and the inclusion of additional non-sporting components. **Methods:** A textual narrative synthesis followed a systematic search of six databases, according to PRISMA guidelines, and conducted during April 2016. Inclusion criteria were people in prison, aged 15 or over, involved in a facilitated SBI. The outcome was impact on psychological well-being and all study designs were considered. Search results were reduced from 10,749 studies, to 14 (nine quantitative and five qualitative) after screening. **Results:** Interventions lasted from six weeks to nine months, with nine being multi-component. A positive affect on psychological well-being or related variable was reported in twelve studies. However, there were inconsistencies in measurement, a lack of baseline data and limited follow-up. Health behaviour change theories were a notable omission across the interventions. **Conclusions:** SBIs have the potential for beneficial impacts on psychological well-being within prisons. However, future studies should aim to address identified measurement inconsistencies and weak research design, and also include psychological change theory in their design. This will better enable practitioners and researchers alike to identify the key psychological mechanisms impacted and how, subsequently implementing SBIs with increased understanding and confidence in their contribution to prisoner psychological well-being.

2.2 Introduction

Recent reports from across multiple jurisdictions highlight poor mental health and psychological well-being within the prison population as endemic (United Kingdom - Mental Health and Criminal Justice Report, [Durcan], 2016; United States - Travis, Western, and Redburn, 2014; Australia - Australian Institute of Health and Welfare, 2015). The Mental Health and Criminal Justice Report (2016) identified key services, partnerships or actions, which when combined, aim to meet the needs of the complex and diverse spectrum of mental health issues within the prisons. Although not identified within the report, regular physical activity is widely advocated to have a beneficial impact on mental health and well-being (Lancet, 2016; WHO, 2016), and evidence from systematic reviews demonstrates the positive effect of physical activity on mental well-being (Arent, Landers & Etnier, 2000; Biddle & Asare, 2011). Therefore, although within prisons primary mental health care will be the lead service, the provision of sport and physical activity is one service which is potentially well placed to meet a portion of the mental health and well-being needs. To date however, there has been no systematic review of the perceived benefits of SBIs on psychological well-being within prison populations.

Cognisant of the prevalence of poor psychological well-being in the prison population and the potential for sport and physical activity to positively impact upon it, the results of a study into the provision of health promotion within physical education (PE) programmes across the secure estate in England and Wales (Lewis and Meek, 2012) provide pause for thought. Remedial PE provision was the most common (73% of establishments), whilst, programmes explicitly aimed to improve mental health were provided in only 23 of the 142 secure estates surveyed (16%).

However, any efforts to improve psychological well-being through PE programmes and/or related sport and physical activity interventions should first systematically assess the available body of evidence, which is therefore the primary aim of this review.

Guidance provided by the Medical Research Council (MRC) advises the involvement of health behaviour change theory at all stages of the design and evaluation process of interventions (Moore et al., 2015). However, when evaluating SfD programmes designed to positively impact at-risk youth, Hartmann (2001) and Baldwin (2000), identified the absence of clear and coherent theoretical foundations as substantive issues. The absence of theory limits our understanding of why interventions are effective (or not), what the effective components are, and how to replicate them across different domains and populations. Or as Michie and Abraham (2004) surmise, key questions are: do they, how do they, and why do intervention programmes work? Therefore, the review will also aim to identify the presence of appropriate theory within the included studies.

Although no systematic review of the topic was identified, Gallant, Sherry and Nicholson (2015), did conduct a thematic analysis which identified three key themes pertaining to sport and recreation activities within prisons, the first of which was health and well-being outcomes for inmates. The remaining two themes were (1) to aid the rehabilitation process; and (2) as an offender management tool. Specific outcomes associated with health and well-being were: reducing health risks for older inmates (Amtmann, Evans & Powers, 2001), increasing general physical fitness (Meek & Lewis, 2012; Nelson, Specian, Campbell & DeMello, 2006),

reduction in depression, anxiety, stress (Battaglia et al., 2014; Buckaloo, Krug & Nelson, 2009, Martos-Garcia, Devis-Devis & Sparkes, 2009) and hopelessness (Cashin, Potter & Butler, 2008). Outcomes related to the rehabilitative process were the development of pro-social identities, improved positive networks with individuals external to the prison (Meek & Lewis, 2014a; Van Hout & Phelan, 2014; Draper, Errington, Omar & Makhita, 2013) and, improved communication and coping strategies (Leberman, 2007).

The identification by Gallant et al. (2015), of separate “health and well-being” and “rehabilitative” themes, although useful in delineating outcomes impacted upon by sport and recreation, suggests that the two are mutually exclusive. However, well-being, in particular psychological well-being, covers both affect and psychological functioning with two distinct perspectives: (a) the hedonic perspective, which focuses on the subjective experience of happiness and life satisfaction: and (b) the eudaimonic perspective, focusing on psychological functioning, self-realisation and flourishing (Ryan & Deci, 2001). Taking this into account, it is plausible to consider the rehabilitative theme identified by Gallant et al. (2015) as central to, rather than separate from, improved psychological well-being. This is not to suggest that Gallant et al. (2015) have explicitly set out to paint themes (a) and (b) as incompatible, rather an observation that the dividing lines are hard to draw. This view resonates with Huta (2015), who commented that psychological well-being is often used without clarity across the literature to refer to a multitude of outcomes or benefits.

It is worth noting that although studies examining the perceived benefits of SBIs within prison populations have been described as limited (Meek and Lewis,

2014a, pg.96), and “embryonic” (Gallant et al., 2015, pg.46), there does exist considerable research into the use of sport as a development tool to promote well-being for broader at-risk populations, whilst also delivering societal benefits, such as social cohesion and crime reduction in their communities (Coalter, 2009; Nichols, 2007; Cameron & MacDougall, 2000). Arguments and testimonies are presented by practitioners, service users, and those whom Coalter (2013, pg.4) labels ‘sport evangelists’, extolling the virtues of sport-based interventions on one side; whereas empirical evidence often warns of a disconnect between the views of the practitioners and those seeking objective evidence of impact (Coalter, 2013; Lubans, Plotnikoff and Lubans, 2012; Hartmann & Kwauk, 2011; Kay, 2009; Sandford, Armour & Warmington, 2006).

Kay (2009), highlights that it is widely recognised that the claimed benefits attributed to sport over-reach the research base as the evidence of sports social impacts is unsatisfactory in all contexts, not just international development ones. Methodological research shortcomings identified include: lack of clarity in planning and specifying programme outcomes; lack of base-line data for comparison; short-termism in projects and evaluations; conceptual difficulties in defining measures for evaluating programme outcomes; and difficulty in attributing causality (Collins & Kay, 2014; Coalter 2013; Lubans et al., 2012, Biddle and Asare, 2011; Collins, Henry, Houlihan & Buller, 1999). These criticisms can therefore serve as useful guides when assessing the evidence base for SBIs and their impact within prison populations.

It is also worth considering if the use of sport in prisons to impact psychological well-being mirrors the different classifications identified within Coalter's (2007) analysis of sport for development programmes. In this, Coalter differentiates between: (a) Traditional forms of sport provision, which would for example include, independent exercise in the prison gym, with an implicit assumption or explicit affirmation that the exercise has inherent developmental properties; and (b) Sport Plus in which sports are adapted and/or augmented with parallel programmes to overtly maximise development objectives, A third classification of Plus Sport is also defined by Coalter, in which sport's popularity is used to attract participants to programmes of education and training, where the systematic development of sport is rarely an aim.

Therefore, the primary purpose of this systematic review was to determine the perceived benefits of sport-based interventions on the psychological well-being of people in prison. A second aim was to review the intervention studies to determine what theory of behaviour change is included within the design and evaluation of SBIs within prison. Finally, the review will examine the extent to which sport is provided as a stand-alone intervention or augmented with additional components in line with the sport-plus model, such as peer mentoring, life-skills classes etc. The review will follow a mixed-methods format, incorporating both qualitative and quantitative studies. Harden (2010) makes the case that the mixed-methods model enables the integration of quantitative estimates of benefit (or harm), with increased qualitative understanding from the people the interventions are targeting. The net benefit is therefore increased utility and impact of findings, to better inform policy and practice.

2.3 Method

The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines were followed in the current review (Moher et al., 2015). A review protocol detailing the main objectives, key design features and planned analyses was registered with PROSPERO (ID number: CRD42016040005).

A systematic search was conducted in April 2016 in six databases: 1) Criminal Justice Abstracts by EBSCO; 2) National Criminal Justice Reference Service (NCJRS) Abstracts; 3) Scopus; 4) SPORTDiscus; 5) Ovid PsycINFO; and 6) Web of Science. Each database was searched from the year of their inception until April 2016. The search included the use of truncation, wildcards and MeSH terms as appropriate, adjusting for each database. Table 2.1, details the keywords chosen by the authors, in consultation with the institute librarian and reflecting practice and previous research, designed to enable the identification of prison based studies detailing interventions falling under the broad definition of ‘sports-based’. With regard to the outcome category, psychological well-being is considered a complex and multi-dimensional construct (Huta & Ryan, 2010). Mindful of this complexity and the multiple definitions attached to psychological well-being (Huta, 2015), we felt it would be restrictive to prescribe our own keywords to this category for the on-line search, and chose to assess this at the screening stage, with the authors examining the study outcomes for the inclusion of items related to psychological well-being.

PICOS	Inclusion Criteria	Exclusion Criteria	Keywords
Participants	<ul style="list-style-type: none"> • People in prison • Aged 15 or above 	<ul style="list-style-type: none"> • Chronic physical or mental illness. • Physical disabilities. • Aged below 15 years of age • Population not serving a prison sentence at time of intervention. 	<ul style="list-style-type: none"> • Prison • Criminal • Offender • Remand • Probation • Felon • Inmate • Convict
Intervention	<ul style="list-style-type: none"> • A facilitated sport-based intervention • Sport-based intervention can include any physical activity component including any aerobic activity, exercise, physical training or fitness. 		<ul style="list-style-type: none"> • Sport • Exercise • Physical activity • Outdoor activity
Outcomes	<ul style="list-style-type: none"> • Impact on psychological well-being. 		
Study Design	<ul style="list-style-type: none"> • Due to the anticipated paucity of experimental studies available within the complex environment of prison settings, study design was left open to all qualitative and quantitative designs. 		
Limiters	<ul style="list-style-type: none"> • English language • Peer Review (<i>post electronic search</i>) 		

Table 2.1: PICOS Elements for the Review Protocol and Associated Search Keywords

Eligibility Criteria

The eligibility of the studies for inclusion is summarised in Table 2.1. No restriction was placed on the choice of research design, due to the complex nature of prison-based research. Within the controlled prison environments, traditional benchmark factorial research designs such as randomised control trials are rare. Although no restriction was placed on research design, eligibility criteria for type of

studies reviewed consisted of those published in English language and in peer reviewed publications. The latter of these was assessed by two of the authors (DW & GB) at the screening stage, rather than relying on the electronic database classification. To ensure a level of methodological rigour was adhered to, non-peer reviewed articles or grey literature including non-peer reviewed reports, editorials, and Masters or PhD dissertations were excluded. Participants were those in prison at the time of exposure to the intervention and aged 15 years or over. This age distinction was made as within the UK, typically those aged under 15 will be held in a Secure Children's Home (SCH), and those over 15 will be held in either a Young Offender Institute (YOI) or Secure Training Centre (STC). In contrast, within the United States, typically a single distinction is made, with those aged 17 and under classed as juveniles, although this can vary between states and in some cases juveniles can be tried as adults and imprisoned accordingly. Studies specifically detailing populations with intellectual and physical disabilities were excluded.

The intervention was required to be sports-based, although in line with the SfD literature, the sporting component(s) could be adapted or augmented with, for example, life skills classes mentoring, community placements, sports personality guest speakers (i.e. "sport-plus"). As there are various definitions of sport available we were guided by that offered by the European Sports Charter (Council of Europe, 2001): "Sport means all forms of physical activity which, through casual and organised participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competitions at all levels." (pg.3). Therefore included studies incorporated any physical activity component, including aerobic activities, yoga, exercise, physical training or fitness.

The type of outcome measures the review sought to identify and examine were those related to psychological well-being. This provided conceptual difficulties as several studies explicitly targeting psychological well-being incorporated measures of mental ill-being, i.e. depression and anxiety. As acknowledged by Tennant et al. (2007) these constructs reflect different approaches in relation to the understanding and measuring of psychological well-being within the literature, namely a focus on measuring either poor mental health or positive mental health. Given the embryonic nature of research within this field, rather than exclude studies which focused on measuring ill-being as a related construct of psychological well-being, they were included and this issue will be addressed further in the discussion.

Quality Assessment and Risk of Bias

To accommodate the broad scope of methodologies present in the studies identified, the quality assessment tool 'QUALSYST' from the "Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields" (Kmet, Lee & Cook, 2004), was chosen to assess the risk of bias. This pragmatic tool enables the assimilation of both quantitative and qualitative studies, with an overall assessment score ranging from 0 to 1 assigned on the basis of 14 individual criteria (quantitative studies) or 10 individual criteria (qualitative studies). Specific criteria were scored ("yes" = 2, "partial" = 1, "no" = 0), and items not applicable to a particular study design were marked "n/a", and were excluded from the calculation of the summary score. An overall score ranging from 0-1 was then calculated for each paper by dividing the total sum score obtained across rated items by the total possible score, with a resulting rating of weak (0.00–0.49), moderate (0.50–0.74), or strong (0.75–1.00).

Data Extraction

Eligibility and quality assessments of the included articles, in line with the respective criteria outlined previously, were assessed by two independent reviewers (DW and GB) in a structured format. Following independent review, the researchers discussed findings and reached agreement. In the case of continued disagreement, a third reviewer was available (DH). The key characteristics from each study were carefully extracted by DW and assimilated into a hierarchy of two categories, quantitative or qualitative. Data extraction was completed in a structured format, retrieving the authors names, country in which the study was conducted and prison type, study research design, sample size, age and gender, aims of the intervention, alongside the intervention description, duration and frequency. The outcome measurements retrieved were indicators of psychological well-being (or ill-being), the measurement tool used and whether or not the intervention had a significant positive or negative effect ($p < .05$). Cohen's d effect size was calculated for each intervention where the mean and standard deviation score was available. Outputs from the data extraction were assessed by a second researcher (GB), and following discussion, information was clarified or added to as required.

Data Synthesis

Due to inclusion of both qualitative and quantitative studies within the systematic review, a textual narrative approach was adopted to synthesize the data extracted. Barnett-Page and Thomas (2009), in their critical review of methods for the synthesis of qualitative research highlight the appropriateness of a textual narrative approach for synthesizing evidence of different types (e.g. qualitative,

quantitative, economic etc) and identifying heterogeneity and issues of quality appraisal. It was therefore considered that this data synthesis approach best suited the study aims.

2.4 Results

The search strategy identified 10,749 studies (2279 from Criminal Justice Abstracts by EBSCO; 2918 from National Criminal Justice Reference Service (NCJRS) Abstracts; 1515 from Scopus; 1673 from SPORTDiscus; 1253 from Ovid PsycINFO; 1109 from Web of Science and two from a hand search of reference lists of retrieved studies; see Figure 2.1). Following removal of duplicates (293), 10,456 articles were screened using their title and abstract. This screening resulted in 65 articles remaining which were screened in full.

Of the 65 articles reviewed a further 51 were excluded based on the following criteria: six were not peer reviewed; one was a non-prison based population; five detailed a population including participants under 15 years of age; four examined populations specifically suffering from chronic physical and/or mental illness; 29 did not examine a specific sports-based intervention; and six did not include a psychological well-being outcome measure. This resulted in 14 studies for inclusion in the final analysis (which includes one study identified in the reference lists of retrieved studies, the other was excluded).

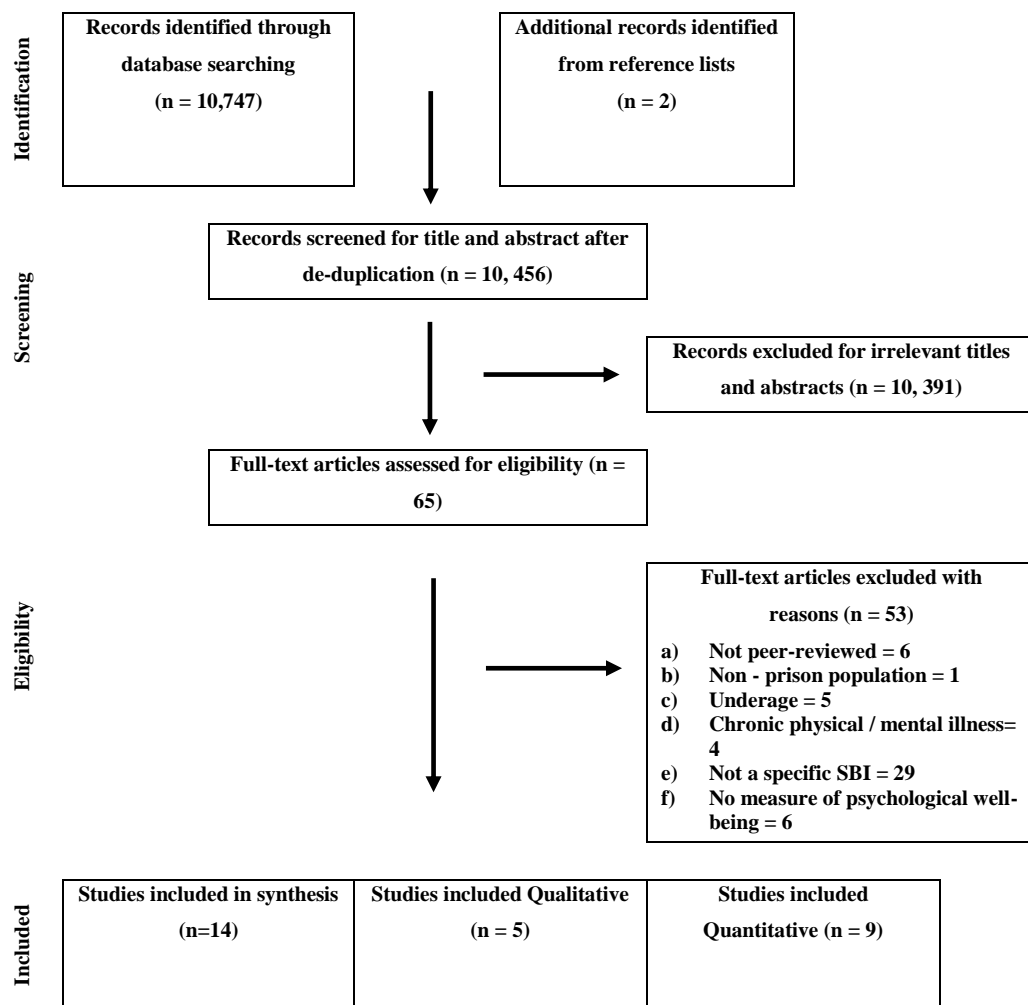


Figure 2.1: Flow Chart of Study Selection Process using PRISMA (Moher et. al, 2015)

Quality Assessment and Risk of Bias

Table 2.2 details the estimated risk of bias for all studies meeting the inclusion criteria, Tables 2.3 and 2.4 detail scores on each risk area. Eight articles received a low risk of bias assessment and six received a medium assessment. It should be noted that QualSyst allows for ‘n/a’ on some criteria, where a condition is not possible to assess. Therefore, when assessing sports-based interventions within prison, if conditions such as intervention type and blinding of subjects was not possible in a randomised control trial (RCT), it was classified as ‘n/a’, rather than having a negative impact on the quality assessment.

Quantitative Studies			Qualitative Studies		
Author(s)	QualSyst Score (0 – 1)	Risk of Bias	Author(s)	QualSyst Score (0 – 1)	Risk of Bias
Battaglia et al. (2014)	0.88	⊛	Amtmann & Kukay (2016)	0.55	⊛⊛
Bilderbeck et al. (2013)	0.96	⊛	Gallant et al. (2015)	0.70	⊛⊛
Harner et al. (2010)	0.79	⊛	Leberman (2007)	0.85	⊛
Hilyer et al. (1982)	0.96	⊛	Meek & Lewis (2014a)	0.75	⊛
Libbus et al. (1994)	0.67	⊛⊛	Parker et al. (2014)	0.55	⊛⊛
Martin et al. (2013)	0.73	⊛⊛			
Munson (1988)	0.92	⊛			
Nelson et al. (2006)	0.50	⊛⊛			
Williams et al. (2015)	0.86	⊛			

Table 2.2: Summary of Quality Assessment and Risk of Bias (⊛=Low; ⊛⊛=Medium; ⊛⊛⊛=High)

Characteristics of the Intervention Studies

Study Design

Information including study design, sample size, gender, age and intervention details, along with the key findings of the included studies were extracted and are presented in Tables 2.5 and 2.6. Of the 14 studies identified, nine were quantitative, 4 were qualitative and one included mixed methods, with the psychological well-being component identified through qualitative methods (one study by Gallant et al., 2015 reported four separate interventions, all utilising qualitative methods). Within the quantitative studies, four were RCTs, two were pre-post-intervention design with a non-randomised control group, one was repeated measures, and two were cross-sectional. The qualitative studies were mainly conducted via interview, two interviewed participants post intervention only, one study conducted interviews post the intervention and again at three months follow-up, one study interviewed and observed participants during the intervention, and one study utilised a broad spectrum of qualitative tools, including interviews, focus groups, written feedback from participants video diaries and a participatory research event hosted at the authors institution involving participants since released or still remaining in custody, on special release.

The interventions consisted of either sport only, or sport as part of a broader multi-component intervention, using additional educational or counselling components, in line with Coalter's definition of "sport plus". Six of the studies detailed sport only interventions (Battaglia et al., 2014; Bilderbeck, Farias, Brazil, Jakobowitz & Wikholm, 2013; Harner, Hanlon & Garfinkel, 2010; Libbus, Genovese & Poole, 1994; Munson, 1988; Gallant et al., 2015). Two of the studies incorporated a session on goal setting and motivation (Hilyer, Wilson, Dillon & Caro, 1982; Amtmann & Kukay, 2016). One of the studies included sport alongside goal-setting and weekly nutritional seminars (Martin et al., 2013). One study focused on an intervention which included sport alongside cognitive behavioural techniques and psychotherapy (Nelson et al., 2006). One study detailed an intervention based on outdoor adventure activities, alongside social, creative and reflective activities (Leberman, 2007), and the remaining three studies were centred on sport interventions, delivered as part of a comprehensive development programme including for example, life-skills classes, peer review and mentoring, case-worker support, and "through-the-gate" transitional support where required, for example in relation to family re-engagement (Meek and Lewis, 2014a; Parker, Meek & Lewis, 2014; Williams, Collingwood, Coles & Schmeer, 2015).

The sample size across selected studies ranged from two (Amtmann & Kukay, 2016) to 105 participants (Nelson et al., 2006), with the majority of studies (9 out of 14) including solely male participants. Total population across all studies was 614, with 527 males (86%) and 87 females (14%). The duration and frequency of interventions ranged from 20 days, full-time (outward bound programme, Leberman, 2007), to nine months, consisting of exposure to intervention for one

hour, twice a week (Battaglia et al., 2014). Two of the studies did not specify an overall duration for the programme(s) (Nelson et al., 2006; Gallant et al., 2015), detailing only that they were ongoing activities which participants could engage in on multiple occasions. Only two of the studies, both qualitative, included longer term follow-up results. Leberman (2007) interviewed 14 of the original 27 participants at three months post-programme, and Meek and Lewis (2014a) conducted interviews with 38 participants after their release from prison. Although there is no specific detail on the interim time lapsed prior to follow-up interviews.

Studies	Quality assessment qualitative studies										Summary score
	1. Question/objective	2. Study design	3. Context	4. Theoretical framework	5. Sampling strategy	6. Data collection	7. Data analysis	8. Verification procedure	9. Conclusion	10. Reflexivity	
Amtmann & Kukay (2016)	2	1	2	2	0	1	0	0	2	1	11/20 = 0.55
Gallant et al (2015)	1	1	2	2	0	1	2	2	2	1	14/20 = 0.70
Leberman (2007)	2	2	2	2	1	2	2	2	2	1	17/20 = 0.85
Meek & Lewis (2014a)	2	2	2	2	1	1	1	2	2	0	15/20 = 0.75
Parker et al. (2014)	2	2	2	2	0	1	0	0	2	0	11/20 = 0.55

2 = yes; 1 = partial; 0 = no

Table 2.3

Quality assessment tool with the Quallsyst tool (Kmet et al., 2004)

Studies	Quality assessment quantitative studies														Summary score
	1. Question	2. Study design	3. Selection	4. Subject characteristics	5. Random allocation	6. Blinding investigators	7. Blinding subjects	8. Outcome	9. Sample size	10. Analytic methods	11. Estimate of variance	12. Confounding	13. Results	14. Conclusion	
Battaglia et al. (2014)	2	2	1	2	2	n/a	n/a	2	2	2	2	1	2	1	21/24 = 0.875
Bilderbeck et al. (2013)	2	2	2	2	2	n/a	n/a	2	2	2	2	2	2	1	23/24 = 0.96
Harner et al. (2010)	2	1	2	2	n/a	n/a	n/a	2	1	2	2	1	2	2	19/24 = 0.79
Hilyer et al. (1982)	2	2	2	2	1	n/a	n/a	2	2	2	2	2	2	2	23/24 = 0.96
Libbus et al. (1994)	2	2	1	1	0	n/a	n/a	2	1	2	0	1	2	2	16/24 = 0.67
Martin et al. (2013)	2	1	2	2	n/a	n/a	n/a	1	1	1	2	1	2	2	16/22 = 0.73
Munson (1988)	2	2	1	2	1	n/a	n/a	2	2	2	2	2	2	2	20/24 = 0.92
Nelson et al. (2006)	1	1	1	0	n/a	n/a	n/a	1	2	1	n/a	n/a	1	1	9/18 = 0.50
Williams et al; (2015)	2	2	2	2	n/a	n/a	n/a	1	1	2	2	1	2	2	19/22 = 0.86

2 = yes; 1 = partial; n/a = not applicable

Table 2.4

Quality assessment with the QualSyst tool (Kmet et al, 2004)

Quantitative Assessment of Psychological Well-being

Table 2.6 provides details of the aims, measures and outcomes of all selected studies. Across the nine quantitative studies included, 12 different assessment tools were detailed measuring items related to psychological well-being or ill-being. The Beck Depression Inventory was used three times (Hilyer et al., 1982; Harner et al., 2010; Libbus et al., 1994) Two other measures were used twice, and the Self-esteem Inventory, also used by Hilyer et al. (Form A) and Munson (Form B), and the Perceived Stress Scale (Bilderbeck et al., 2013 & Harner et al., 2010). Examples of other measures used were the Profile of Mood States (POMS), the State-Trait Anxiety Inventory (both by Hilyer et al., 1982), the Symptom-90 Checklist Revised (Battaglia, 2014), a single item measure of self-esteem, with a reported concurrent validity of 0.93 with the Rosenberg Self-Esteem Scale (1965) (Williams et al., 2015), and two additional measures were non-validated questions incorporated into custom questionnaires measuring several different factors (Martin et al., 2013; Nelson et al., 2006). Of note is the fact that no studies incorporated questionnaires directly measuring psychological well-being, for example, The Warwick Edinburgh Mental Well-being Scale (Tennant et al, 2007).

Author and Year of Publication	Research Design	Sample size; gender; age; prison type	Intervention
Battaglia et al. (2014) Italy	RCT	64; M; 18-50 L/M security: male	9 months, supervised training protocols, 1hr, 2xWeek; 3 Groups: 1) Cardiovascular plus resistance training (CRT); 2) High intensity training (HIST); 3) Usual care
Bilderbeck et al. (2013) US	RCT	93 M; 7 F; \bar{x} age = 38.4 7 Prisons, L/M security; male/female/ YOI	2 Groups: 1) Yoga classes (hatha yoga postures, stretches, breathing exercises), 2 hrs 1xWeek for 10 weeks; 2) Care as usual.
Harner et al. (2010)	Within group repeated measure design	21*; F; 36 + M security; male	2 hrs, 2xWeek for 12 weeks. Iyengar yoga (focus on correct postural alignment, use of blocks and props)

Hilyer et al. (1982) US	RCT	43 M; 15 – 18 YOI: male	90 mins, 3xWeek for 20 weeks. 2 Groups: 1) Brief meetings with goal setting, flexibility training, weight training, run with gradual progress: 2) Care as usual
Libbus et al. (1994) US	Pre-post-intervention design with a non-randomised control group	45; M; 18 – 50 2 county jails; no security level information.	12 weeks, 1 hr, 3xWeek 2 Groups: 1) Aerobic Exercise; 2) Usual Care
Martin et al. (2013) Canada	Cross-sectional (other items were repeated-measures)	16; F; 18+ M security; female	6 weeks, minimum commitment 3xWeek. 2 Groups: 1) exercise (circuit stations and aerobic routine) and nutrition programme; 2) Usual care
Munson (1988) US	RCT	39; M; \bar{x} age = 17.2 H security; male	10 weeks, 1xWeek Three groups 1) leisure education; 2) physical activity; 3) informal discussion
Nelson et al. (2006) US	Cross-sectional	105; M: not reported H security; male	Physical activity (approx. 30mins day; 4xWeek) aim at improving upper, lower and midsections of body (e.g. push-ups, sit-ups, lunges), delivered alongside cognitive behavioural techniques, Gestalt psychotherapy, transactional analysis and moral reconnection therapy (MRT).
Williams et al. (2015) UK	Pre-post-intervention design with a non-RC group	24; M: 18-21 YOI	A 10 week rugby academy, including 72 hours of rugby, alongside a range of activities leading to accredited awards and exercises in functional skills in literacy and numeracy.
Amtmann and Kukay (2016) US	Mixed-methods (psychological well-being measure = interviews)	2; M; 16 & 19 YOI	An 8 week fitness coach led programme; one facilitated hour of motivation and exercise per week.
Gallant, Sherry & Nicholson (2015) Australia <i>STUDY 1</i>	Interviews, cross sectional	12; M; 20 – 60 H security; male	Weekly soccer program, established in partnership with not-for-profit organisation. Involved fellow inmates and visiting teams. Additional information on intensity and duration of program not detailed.
Gallant et al. (2015) <i>STUDY 2</i>	Interviews, , cross sectional	12; F; not reported L/M/H security; female	Softball program, delivered twice each week. Overall duration of program and session length not detailed
Gallant et al. (2015) <i>STUDY 3</i>	Interviews, , cross sectional	3 M; 4 F; not reported L/M/H security; mixed M/F	Physical exercise program, including soccer, football, softball and a boot-camp. Run on rotating weekly basis with different cohorts. Overall duration of program and session length not detailed
Gallant et al. (2015) <i>STUDY 4</i>	Interviews, , cross sectional	6; M; not reported L/M/H security; mixed M/F	Australian rules football competition. Local teams brought into prisons to play bi-weekly. Inmates participate in finals at off-site location. Overall duration of program and session length not detailed
Leberman (2007)	Post intervention and 3-month follow-up interviews	F; 27; 18-48 No prison security information	A 20 day residential of outdoor adventure activities, incl. ropes courses, sailing and hiking. Course also included social, creative and reflective activities.
Meek and Lewis (2014a)	Pre-post interviews, focus groups, diaries (written and video), participatory research event; participants followed over two years	79; M; 18-21 Plus 11 prison and delivery staff; gender/ age not reported YOI	A 12 week Football or 15 week Rugby Academies Intensive coaching, fitness training, matches, group activities, guest speakers and peer review exercises.

Parker, Meek and Lewis (2014)	Interviews, observation and documentary analysis.	12; M; 15-17 YOI	12 week sport based academies: 6 x 1.5hrs weekly on the theoretical aspects of sport, 6 x 1.5hrs practical sessions. Plus, wrap around multi-agency support package, including sports coaching, qualifications, life-skills mentoring, community placements and pre-release settlement support.
-------------------------------	---	---------------------	---

*Sample size reported as 21, however only 6 completed the intervention.

Table 2.5: Characteristics of the selected intervention studies. Gender: (M=Male; F=Female) Prison Security Level: (L=Low; M=Medium; H=High).

Effect of Interventions

Table 2.6 provides detail for the effect of all studies reviewed. Five of the seven quantitative studies which incorporated pre and post measures related to either psychological well-being (e.g. self-esteem) or ill-being (e.g. depression, anxiety) reported significant improvements. Hilyer et al. (1982) reported significantly more favourable results for the intervention group versus control in all but three of fifteen variables, with large effect sizes for increase in Self-Esteem Inventory ($p < 0.001$, $d = 1.23$), and decreases in trait anxiety ($p < 0.001$, $d = -1.71$) and BDI ($p < 0.001$, $d = -1.83$). Battaglia et al. (2014) reported significant decreases in depression for both intervention groups (Cardio and Resistance Training & High Intensity Strength Training) in comparison with the control group, ($p < 0.05$, $d = -0.75$), and ($p < 0.01$, $d = -0.82$) respectively. Bilderbeck et al. (2013) also reported significantly favourable results for the yoga intervention group versus control, with significant increases on positive affect, and decreases in perceived stress and psychological distress ($p < 0.05$).

Two studies reported no significant positive or negative changes across time-points (Munson, 1988 & Williams et al., 2016). In the remaining two studies, which employed a post-intervention survey to measure items related to psychological ill-being (Martin et al., 2013 [stress levels] and Nelson et al., 2006 [stress, depression

and anxiety]) a strong majority of participants reported a positive impact for intervention (94% of participants in the former and 75% in the latter).

Findings from the qualitative studies highlighted a positive impact on psychological well-being and ill-being for all programmes, with improvements in self-concept, self-confidence, self-esteem, positive thinking, stress, and anxiety. Meek and Lewis (2014a) and Parker et al. (2014), which both focused on sport-based interventions with significant wrap around services, reported positive impacts on self-esteem, self-efficacy and increased pro-social behaviours and attitudes. Amtmann & Kukay (2016) reported perceived benefits of increased confidence and reduced stress levels, with Leberman (2007), in her evaluation of female offenders and outward bound activities, also reporting increased confidence and self-esteem.

Only Leberman (2007), reported the presence of adverse effects. These were identified by participants in the three-month follow-up study, which is also noteworthy, as only Leberman (2007) and Meek and Lewis (2014a), included post-intervention follow-up. Six from 14 of those interviewed at follow-up by Leberman, reported a perceived negative effect on mood due to a lack of purposeful activities to engage with on return to the prison environment following intervention. There was a feeling that the intervention had therefore been a waste of time as nothing they learnt had been put to good use, and that they had been “let down” (Leberman, 2007, p 121).

In light of the predominantly positive findings reported, it is worth noting that none of the qualitative studies explicitly identified impact on psychological well-being or mental health as an aim at the outset of their programmes. This is in contrast

to seven out of the nine quantitative studies, which explicitly stated impact on psychological well-being, or related concepts, for example, self-esteem, as a specific aim. This omission within the qualitative studies is important as it potentially impacts on the ability to understand and replicate the factors affecting changes in psychological well-being. This is considered further within the discussion.

Inclusion of Theory

Although MRC guidance advises the involvement of behaviour change theory at all stages of the design and evaluation of health interventions, no behaviour change theory was presented in association with the sport or physical activity element within the studies reviewed. Two of the included studies (Leberman, 2007; Harner et al., 2010) did provide an explicit reference to an underpinning theory of change or philosophy for the perceived benefits of the SBI on psychological well-being. Leberman identified Kurt Hahn's philosophy, centring on personal and social development through challenging adventure experiences, with real consequences. Harner et al., designed their intervention around a gender-responsive programming framework developed by Bloom, Owen and Covington (2003), which identifies six guiding design principles (Gender, Environment, Relationships, Services, Socioeconomic status and Community). Nelson et al. (2006), cited the inclusion of psychotherapy techniques, including Kohlberg's moral reconnection therapy (MRT). Other included studies highlighted within their literature reviews the potential biological links between exercise and improvement in, for example, depression, but failed to provide an explicit reasoning for their own intervention design. This is not to suggest all programmes referenced within the studies exist in isolation from suitable theories or behavioural frameworks, which might affect the desired

outcomes. Rather, the studies examined, purposefully or otherwise, have not included descriptions of them.

Author, Year of Publication and Country	Theory/ Framework	Aims	Measure(s)	Result(s)
Battaglia et al. (2014) Italy	None provided	Improving psychological well-being and evaluate any psychological effects of the two training protocols.	Symptom Checklist-90 Revised	<p><u>Effects on Group</u></p> <ul style="list-style-type: none"> • CRT Group: Significant decrease in Interpersonal Sensitivity (I-S) and Global Severity Index (GSI) ($p < 0.01$); • HIST Group: Significant decrease in anxiety (ANX) and Phobic Anxiety (PHOB), ($p < 0.05$). • Usual Care group, significant increase in DEP ($p < 0.05$) <p><u>Effects on Intervention Group v Control</u></p> <ul style="list-style-type: none"> • Significant decrease in depression (DEP) scores for both CRT ($p < 0.05$, $d = -0.75$) and HIST ($p < 0.01$, $d = -0.82$), versus usual care.
Bilderbeck et al. (2013) US	None provided; highlights the complexity of yoga and the challenge of attributing well-being to particular components.	Hypothesised that the practice of yoga will be associated with improved mood and psychological well-being. Secondary aim to examine impact of yoga on impulsivity aspect of executive functioning.	<ul style="list-style-type: none"> • Positive and Negative Affect Scale • Perceived Stress Scale • Brief Symptom Inventory 	<p><u>Effects on Group</u></p> <ul style="list-style-type: none"> • Yoga Group: Significant increase in positive affect ($p < 0.05$), and significant decrease in perceived stress ($p < 0.001$) and psychological distress ($p < 0.01$). • Usual Care: significant decrease in perceived stress ($p < 0.05$). <p><u>Effects on Intervention Group v Control</u></p> <ul style="list-style-type: none"> • Significantly higher positive affect reported for Yoga group versus usual care ($p < 0.05$) • Significant decrease in perceived stress ($p < 0.05$), and psychological distress ($p < 0.05$) versus usual care.
Harner et al. (2010) US	Gender responsive framework adopted (Bloom et al, 2003).	Primary aim to test feasibility of group format exercise intervention; Also, hypothesised that Iyengar yoga may increase psychological well-being, and observed effect on depression and anxiety symptoms and perceived stress.	<ul style="list-style-type: none"> • Beck Depression Inventory-II • Beck Anxiety Inventory • Perceived Stress Scale 	<p><u>Intervention Group</u></p> <ul style="list-style-type: none"> • Significant decrease of BDI score ($p < 0.01$), • Anxiety scores decreased ($p = .06$) • Stress scores initially dropped but returned to baseline by end of 12 weeks.
Hilyer et al. (1982) US	Group-counselling based on Carkhuff approach.	To investigate if physical fitness training delivered by skilled counsellors bring about positive physiological and psychological changes.	<ul style="list-style-type: none"> • Self-Esteem Inventory (Form A) • POMS • State-Trait Anxiety Inventory 	<p><u>Effects on Intervention Group v Control</u></p> <ul style="list-style-type: none"> • Significant increase in Self-Esteem Inventory, Coppersmith total ($p < 0.01$, $d = 1.23$) • Significant decrease in both trait ($p < 0.01$, $d = -1.71$) and state anxiety ($p < 0.01$, $d = -0.61$)

			<ul style="list-style-type: none"> Beck Inventory of Depression 	<ul style="list-style-type: none"> Significant decrease in Beck Inventory of Depression ($p < 0.01$, $d = -1.83$) Significant decrease in 4 out of 6 POMS affective states: depression ($p < 0.01$, $d = -0.49$); fatigue ($p < 0.01$, $d = -1.39$); confusion ($p < 0.01$, $d = -1.41$); and anger ($p < 0.05$, $d = -1.39$). No significant changes in tension and vigour.
Libbus et al. (1994) US	None provided	To document the efficacy of an organised aerobic program for decreasing depression in the population.	Beck Depression Inventory (BDI)	<u>Effects on Group</u> <ul style="list-style-type: none"> Intervention group significant decrease in BDI mean scores (decrease of 18.76; ($p = 0.0001$)). <u>Effects on Intervention Group v Control</u> <ul style="list-style-type: none"> Intervention group significantly lower scores versus control ($p=0.0001$).
Martin et al. (2013) Canada	None provided	Offer regular nutrition and fitness program to women in prison; catalyse the adoption of LT values in personal health and fitness; to assess the beneficial health effects of programme	Self-reported change at end of programme on Energy Level, Sleep Quality and Stress	<u>Effects on Intervention Group</u> <ul style="list-style-type: none"> Energy: Worse/same 0; Somewhat improved 5; Really improved 11. Sleep Quality; Worse/same 3; Somewhat improved 8; Really improved 5. Stress level: Worse/same 1; Somewhat improved 6; Really improved 9.
Munson (1988) US	None provided	To investigate the effects of leisure counselling on self-esteem, leisure functioning, attitudes toward self, leisure and work, and leisure participation and satisfaction	Self-Esteem Inventory (Form B, 25 items)	NS results for any group
Nelson et al. (2006) US	Biological theories proposed for link between exercise and improved mood.	Designed to elevate moral reasoning and mental cognition, thereby reducing anti-social behaviours. Develop new behavioural habits to assist with re-entry into society.	One question: <i>"Does the exercise help you in moments of depression, stress and anxiety?"</i>	Of 105 participants, 75% reported positive benefit.
Williams et al. (2015) UK	None provided	Develop positive attitudes toward self and others, support personal development, reduce psychological criminogenic factors, aid re-engagement with society and provide re-settlement opportunities.	Self-esteem (1 Question) "I see myself as someone who has high self-esteem."	NS

Amtmann and Kukay (2016) US	None provided	To improve fitness assessment performance from one assessment to the next.	n/a (Qualitative)	Improvements in self-concept and enhanced sense of well-being.
Gallant, Sherry & Nicholson (2015) Australia <i>STUDY 1</i>	None provided.	To increase access to sport and recreation opportunities and facilitate stronger transition process to the community on release.	n/a (Qualitative)	Positive mental (increased happiness, reduced stress, anxiety, tension) and physical health outcomes; diversionary service; privilege, which also modified behaviour in prison; learn new skills; model appropriate social behaviours (fostered sense of pride/ achievement).
Gallant et al. (2015) <i>STUDY 2</i>	None provided.	To engage inmates in sport as a method of rehabilitating prisoners during confinement.	n/a (Qualitative)	Positive mental (reduced stress and anxiety) and physical health outcomes; improved social interactions; diversion from daily monotony; constructive outlet to vent frustration and anger; participation a privilege - incentive for improved behaviour.
Gallant et al. (2015) <i>STUDY 3</i>	None provided.	To provide meaningful physical activity to occupy inmates' time and to develop links to similar established programs in the community (to be accessed upon release).	n/a (Qualitative)	Pass time and alleviate boredom and resultant impact (arguments); positive impact on physical and mental health (stress and anxiety); personal challenge; something to connect with outside of prison away from 'old crew'.
Gallant et al. (2015) <i>STUDY 4</i>	None provided.	To provide meaningful physical activity to occupy inmates' time and develop stronger links with community,	n/a (Qualitative)	"A few" reported increase in physical health and one reported positive impact on mental health (reduced stress and anxiety related to family issues). Effective diversion; model behaviour on release; create harmony amongst various indigenous inmate groups.
Leberman (2007)	Kurt Hahn philosophy centring on personal and social development, and development of personal potential and self-esteem through challenging adventure experiences with real consequences.	Targeted at inmates due for release within the year and provide opportunities for inmates to work on personal development. Exploring who they are, where they have come from and what they want to do with their lives.	n/a (Qualitative)	Development of personal skills, e.g. increased self-confidence and self-esteem. Development of interpersonal skills, e.g., teamwork and communication. Also, participants reported the programme provided a good environment to apply learning from different courses.
Meek and Lewis (2014a)	Theory / Framework of Programme not explicit in paper. Emerging themes in analysis mapped onto	To use sport as a way of engaging young men in identifying and meeting their resettlement needs in	n/a (Qualitative)	Beneficial impact on prison life and culture; preparation for release; resettlement support; attitudes, thinking and behaviour; and in promoting desistance from crime; positive impact on health and diet.

	7 key resettlement pathways	transition from custody to community.		
Parker, Meek and Lewis (2014)	None provided	To use sport to facilitate personal development and social inclusion/ cohesion.	n/a (Qualitative)	Improved pro-social identity, diversionary activity, increased sense of achievement, increased self-efficacy and confidence

Table 2.6: Results of included intervention studies examining impact on psychological well-being. (NS = not significant)

2.5 Discussion

The purpose of this review was to conduct a textual narrative synthesis of the evidence examining (1) the perceived benefits of sport-based interventions on the psychological well-being of people in prison; (2) the extent to which sport is used alongside additional activities within the interventions; and (3) to determine whether studies incorporated health behaviour change theory in the design of the interventions.

Before assessing the collective evidence for impact on psychological well-being, of note was the diverse definitions and measurements the studies associated with the concept of psychological well-being. Huta and Ryan (2010), comment that psychological well-being is a complex and multi-dimensional construct, which was reflected in the fact that measures of ill-being were selected much more frequently than measures of well-being. This approach perhaps represents an historical trend, reflected in the broader observation by Seligman (1998) during his APA presidential address, that psychology had focused almost exclusively on pathology since World War II and would benefit from an increased focus on positive phenomena. Pollard and Lee (2003) also ward against assessing only a single domain of well-being, which is often primarily a deficit indicator. Only three studies, used multiple measures, although almost exclusively deficit measures (Bilderbeck et al., 2013; Harner et al, 2010; and Hilyer et al., 1982). Future research within the prison population, could therefore make efforts to be more balanced and clear when choosing measurement scales, focusing on both increases in well-being and decreases in ill-being, and being specific regarding their definition of psychological well-being.

Although seven from nine of the quantitative studies reported a positive impact on psychological well-being (or ill-being), results from the qualitative studies were less equivocal with all five reporting positive impact on psychological well-being. Qualitative studies also reported a mix of perceived impacts on psychological well-being and ill-being. In contrast to the quantitative studies, impact on psychological well-being, however described, was never explicitly identified at the outset as an aim in any of the qualitative studies, which renders the pathway from intervention design to well-being outcome more difficult to clearly identify and replicate.

The majority of studies included within the review, eight from fourteen, incorporated sport as part of a multi-component intervention, ranging from additional goal-setting and motivation sessions (Amtmann & Kukay, 2016), to multiple wrap-around supports (Meek & Lewis, 2014a). Two key questions arise from this: i) does one approach increase the potential for impact on psychological well-being? and ii) within the multi-component approaches, what portion of any subsequent impact can be attributed to the use of sport? The latter mirrors previous concerns regarding the attribution of causality in SfD programmes targeting at-risk populations (Coalter, 2013, Bateson, 2012; Lubans et al., 2012). Considering the first question, results from the nine quantitative studies provide no clear answer regarding the ability of one intervention design to produce the greater impact. Five of these nine studies were sport only interventions, with four reporting significant positive impact on psychological well-being. Of the remaining four 'sport-plus' interventions, three reported a positive impact on psychological well-being, although

two of these were based on a single non-validated item within a post-intervention survey. The multi-component “Get Onside” rugby intervention reported no significant positive or negative impact on self-esteem. Within the qualitative studies, four from five could be clearly described as “sport-plus”, and all five reported a positive impact, with one also highlighting adverse effects. Future research, with a clearer focus on psychological well-being, could begin with an attempt to differentiate the impact on the hedonic and eudaimonic constructs, of these varying approaches. It would appeal intuitively that sport-plus interventions would have a greater eudaimonic effect with their multitude of wrap-around and transitional services.

Attempting to disentangle the various components of sport-plus interventions and attribute impact on psychological well-being to one element would be problematic and speculative within the current review. A similar problem was also observed by Kay (2009) concerning sport for development programmes, who highlighted the difficulty in deconstructing and attributing causality. Munson (1988, pg. 309) did purposefully provide for a sport only group with “no attempt to dwell on thoughts, feeling or behaviours”, and a leisure counselling group, without any physical activity, however neither group showed significant positive changes on psychological well-being.

MRC (Moore et al., 2015) advise that any attempts to understand why SBIs might have a positive impact on psychological well-being, will benefit from the inclusion of theory at the design and evaluation stage. This enables testing against said theory, and replication with refinement for future impact. Conversely, the

reported involvement of theory in the design and evaluation of the interventions within the studies reviewed was minimal, with Harner et al. (2010) and Leberman (2007), representing an exception to this. This finding resonates with the views of Hartmann (2001), and Baldwin (2000), that the absence of clear and coherent theoretical foundations were substantive issues for sports development programmes aimed toward at-risk youth. In the absence of any of the qualitative studies explicitly stating impact on psychological well-being as an aim, the lack of framework or theory detailing how that might be achieved is no surprise, and perhaps an unfair criticism. However, even if considering the broader aims of these programmes, no change theories were presented. Also, the fact that positive impact on psychological well-being was reported as an outcome, despite not being an explicit aim, highlights the benefit a guiding framework or change theory might afford in isolating the pertinent mediators and moderators of the positive impacts. In concluding their own study, Meek and Lewis (2014a), reflect the greater need identified across all the studies examined here, by highlighting the need for further research to establish the complexities of how these sports based programmes are effective. That is, what behaviour change theories might assist with our understanding of the specific role sport has to play in sport-based interventions, particularly multi-component interventions, within prison populations. Potential themes emerging from the qualitative studies would point to the importance of providing opportunities for teamwork, personal and shared achievements, supportive and encouraging environments and positive self-presentation as mediators of impact (Leberman, 2007; Meek & Lewis, 2014a; & Parker et al., 2014).

Mindful of previous critiques concerning non-prison based SfD programmes, it is not surprising that within the complex confines of prison research, similar issues were identified. Lack of baseline data and short-termism have been identified as limitations (Chamberlain, 2013; Collins et al., 1999), and the same was noted with the studies examined in the current review. Only eight collected pre and post intervention data and only two included a medium to long-term follow-up, as a result of which Leberman (2007), identified adverse impacts. Results therefore highlight a need for longitudinal assessment for impact on psychological well-being. Although longer-term studies would be preferable to assess impact, mindful of the difficulties of prison-based research, even the inclusion of a three-month follow-up provides useful insight into the transferability of impact, positive and negative, as demonstrated by Leberman (2007). Future research should also address the gender imbalance present in the current review, with only 14% female representation. Although this reflects the lower proportion of females within the overall prison population (Warmseley, 2016), Meek and Lewis (2014b) highlight the increased risk of female prisoners to poor mental health and self-harm in comparison to both females in the community and their male counterparts in prison.

Conclusion

The current review examined the impact and content of sport-based interventions on the psychological well-being of people in prison, and the inclusion of health behaviour change theory in the design of the interventions. A positive trend was observed in the use of sport-based interventions to make a positive contribution to the psychological well-being of people in prison. However, the heterogeneity of interventions and outcomes, alongside the methodological weaknesses outlined,

prevent any firm conclusions. It is recommended that future research uses a broad range of robust measures related to psychological well-being, and in doing so utilises pre-post designs and incorporates follow-up. Researchers and practitioners are also recommended to embed and test behaviour change theories within their interventions, which would lead to a better understanding of what works, how and why. This in turn can lead to practical guidelines regarding sport and exercise service provisions within prisons to explicitly target a positive impact on psychological well-being.

3. Methodology

3.1 Introduction

Results from the systematic review presented in Chapter 2 detailed the prevalence of both qualitative and quantitative research methods across studies investigating the perceived benefits of SBIs within prison populations (9 quantitative, 4 qualitative and 1 mixed methods). In support of the use of mixed methods research (MMR) within a line of enquiry, it has been argued that qualitative and quantitative data can be successfully combined to reveal corresponding phases of the same phenomena, (Flick, 2006; Patton 2015). Further to this, Flick (2006) commented that whether or not these two methodological approaches are used simultaneously, or consecutively is of less relevance when their roles are viewed as equal within a research project.

Sparkes (2015), in his critique of the developing use of mixed methods research (MMR) in sport and exercise psychology, also highlighted the strengths of incorporating qualitative and quantitative methods into overall research design. These were: 1) *Offsetting weaknesses and providing stronger inferences*: the respective weaknesses of quantitative and qualitative methods can be overcome and neutralized by drawing on the complementary strengths of each other to provide stronger and more accurate inferences; 2) *Triangulation*: this allows for greater validity in a study by seeking corroboration between quantitative and qualitative data; 4) *Completeness*: using a combination of methods allows for a more complete and comprehensive picture of the studied phenomenon to emerge and can also generate new insights; 5) *Hypothesis development and testing*: qualitative methods can be used to develop hypotheses that can then be tested by quantitative methods;

and 6) *Instrument development and testing*: complementing quantitative methods with qualitative methods can assist in the further (and quicker) development of theory, and the development, testing, and refinement of psychometric instruments for use in subsequent quantitative studies.

This programme of research, focused on determining if and how SBIs have a perceived benefit on the psychological well-being of men in prison, therefore employed both quantitative and qualitative methods. Studies 2, 3 and 4 all employed qualitative methods, specifically semi-structured interviews (studies 2 & 3) and focus groups (study 4) to provide personal insight into prisoners', facilitators' and prison managements' perceptions of the perceived benefits and causal mechanisms of SBIs. Studies 3 and 4 also employed quantitative methods to provide pre and post measures of prisoners' perceived benefits following participation in the relevant SBIs. The purpose of incorporating each of these specific methods is provided below.

3.2 Methods

Semi-structured Interviews (Studies 2 & 3)

Semi-structured interviews were employed within studies two and three. In explaining the benefits of incorporating semi-structured interviews into a research programme, Pawson (1999, pg.299) states that by “offering respondents a chance to elaborate on their fixed-choice answers, both hard, comparable and rich, meaningful data, can ensue”. The semi-structured approach allowed for a relaxed, yet purposeful conversation between the interviewer and the interviewee. It facilitated sufficient structure to ensure a series of consistent and comprehensive topics were covered in

each interview, whilst providing flexibility to ensure that interviewees' insights could be identified and developed (Bryman, 2016).

Focus Groups (Study 4)

Focus groups were employed in Study 4 to capture the views and opinions of multiple participants over a two-day period. Bryman (2016) notes that the focus group method is a form of group interview in which there are several participants, with an emphasis on questioning on a particular, fairly tightly defined topic (e.g. their experience of an intervention). Key to the success of focus groups in eliciting rich qualitative data is the creation and moderation by the facilitator of a permissive environment that encourages participants to share perceptions, or points of view, without pressuring participants to vote or reach consensus (Krueger & Casey, 2014). Although the purpose is not to reach consensus, throughout this process, the role of the facilitator is to create interaction within the group, and the joint construction of meaning (Bryman, 2016), whilst balancing and encouraging the diversity of individual meanings and interpretations.

Quantitative Questionnaires

Six short questionnaires were employed across this programme of research to assess key outcome measures. Information on the focus of each questionnaire is provided below, along with information on the associated reliability and validity. Further explanation on the appropriateness of each questionnaire in assessing the outcome measure is provided in each of the relevant chapters.

The Short Warwick Edinburgh Mental Well-being Scale (SWEMWBS) (Studies 3&4)

The original Warwick-Edinburgh Mental Well-being Scale (WEMWBS) consists of 14 items developed for assessing positive psychological well-being. The measure incorporates a wide conception of psychological well-being including positive affect, that is, hedonic aspects of well-being: feelings of optimism, cheerfulness, and relaxation); and psychological functioning (i.e. eudaimonic aspects of well-being: energy, clear thinking, self-acceptance, personal development, competence, and autonomy); and interpersonal relationships (Bartram, Sinclair, & Baldwin, 2013). The short 7 item version SWEMWBS, focusing more on functioning than feeling, has been validated and shown to satisfy the strict unidimensionality expectations of the Rasch model (Stewart-Brown et al., 2007)

The Basic Psychological Needs Scale (Study 3)

The BPNS assesses the degree to which people feel satisfied with three universal psychological needs included within Self-Determination Theory (SDT), namely, autonomy, relatedness and competence. SDT suggests that these needs must be on-goingly satisfied for people to develop and function in healthy or optimal ways (Deci & Ryan, 2000). The 9 item version, proposed by Deci & Ryan for use by Oxford Poverty and Human Development Initiative (OPHI) (Samman, 2007) was adopted in the current study.

The Sports Climate Questionnaire (Perceived Autonomy Support) (Study 3)

This measure assesses perceptions to which a particular environment, (i.e., coaching environment), is autonomy supportive versus controlling. The Sports

Climate Questionnaire has been shown to demonstrate strong psychometric properties, with a Cronbach's alpha of 0.81 (Brickell, Chatzisarantis, & Pretty, 2006). Within SDT, the quality of social contexts influences the motivation, performance, and psychological well-being of individuals who operate within them. The theory uses the concept of autonomy support versus control to characterise the quality of social environments. It suggests that autonomy-supportive social contexts tend to facilitate self-determined motivation, healthy development, and optimal functioning.

The Brief Resilience Scale (Study 4)

The Brief Resilience Scale (BRS) was created to assess the ability to bounce back or recover from stress, and is considered a reliable means of assessing resilience, displaying good psychometric properties with Chronbach's alpha ranging from 0.80 – 0.91 (Smith et al., 2008). The scale provides an assessment about how people cope with health-related stressors and contains six items, such as: I have a hard time making it through stressful events; I tend to bounce back quickly after hard times; I usually come through difficult times with little trouble. Items are scored on a 1 (strongly disagree) to 5 (strongly agree) scale, with a total score achieved by summing up the score for each item and dividing by 6.

Mental Health Knowledge Schedule (MAKS) (Study 4)

The Mental Health Knowledge Schedule (MAKS), is a mental health knowledge related measure, which comprises domains of relevant evidence based knowledge in relation to stigma reduction (Evans-Lacko et al., 2010). The MAKS is has a Cronbach's alpha of 0.65. It comprises 6 stigma-related mental health

knowledge areas: help-seeking, recognition, support, employment, treatment and recovery, which inquire about knowledge of mental illness conditions. Items included are: Most people with mental health problems want to have paid employment; People with severe mental health problems can fully recover. Individuals rate each item using a 5-point scale, from 1 (strongly disagree) through to 5 (agree strongly), with a “don’t know” option provided for. A total score is achieved by summing up items 1-6. A further 6 items on the MAKS assess knowledge of specific mental illness (depression, schizophrenia, bipolar disorder and drug addiction) and often mistaken non-mental illness (grief and stress).

Reported and Intended Behaviour Scale (RIBS) (Study 4)

The Reported and Intended Behaviour Scale (RIBS) is a measure of mental health stigma related behaviour and has demonstrated good reliability and validity, with a reported Chronbach’s alpha of 0.85 (Evans-Lacko et al., 2011). Items 1-4 address the respondent’s exposure to individuals with mental health problems through examining whether they live or work with, or have a neighbour or close friend, with a mental health problem. Items 5-8 relate to intended behaviours in relation to willingness to live with, work with, live nearby or continue a relationship with someone with a mental health problem. Items 5 – 8 are scored using a 5-point scale, ranging from 1 (strongly disagree) through to 5 (agree strongly), with a “don’t know” option provided for. Summing up scores for items 5-8 provides a total score for engaging with someone with a mental health problem.

3.3 Data Analysis Process

Quantitative Analysis (Studies 2, 3 & 4)

Following the collection of qualitative data within each study, thematic content analysis was undertaken to inductively search for concepts, categories and themes emerging from the data collected. Braun and Clarke (2006) describe thematic analysis as a method for identifying, analysing and reporting patterns (themes) within the data. The six-step process adopted, as advised by Braun and Clarke (2006), is presented in Table 3.1.

Step	Associated Activities
1. Familiarisation with the data	Active reading and re-reading of the transcripts to allow for “immersion” in the data.
2. Initial data coding	Adoption of an open coding method, where the data was fractured, conceptualized and integrated to form concepts and categories (Strauss & Corbin, 1988). Completed with the assistance of the software package QSR NVivo 10.
3. Searching for themes	The use of axial coding to sort, synthesize, and organise the data and reassemble them in potential themes. This was achieved by relating the emergent categories to their subcategories to form more precise and complete explanations or themes.
4. Reviewing themes	Reviewing the themes, to check if they “work” in relation to both the initial open-coded extracts and the entire data set; use of thematic maps. In reviewing the themes, it is important to ensure internal homogeneity and external heterogeneity (Patton, 2015), resulting in themes that are both specific enough to be discrete (non- repetitive), whilst also broad enough to encapsulate a set of related ideas.
5. Define and refine themes	Establish clarity around the essence of each theme and their associated categories and concepts. Although steps 2 through to 5 are presented here as linear, they were constant iterative processes, aided by detailed memo-writing to spark new ways of thinking about the data.
6. Final presentation of themes	Presentation of the complicated story of the data in a way which convinces the reader of the merit and validity of the analysis conducted.

Table 3.1: Braun and Clarke’s (2006) six-step process for thematic analysis

The specific themes arising from this analysis process for each study are presented within the subsequent relevant chapters, along with the associated reliability and validity checks.

Qualitative Analysis

Studies three and four incorporated a number of questionnaires as detailed previously, with each study adopting differing analysis of the quantitative data

collected therein. Information on the analyses conducted within each study is provided for below, with greater context provided for in the relevant chapters.

Study Three

Individual and overall mean results for each outcome measure across four data collection time-points within study three (pre, mid, post and 2-month follow-up) were calculated. More advanced statistical analysis of change over time against baseline scores was not possible due to inconsistent participant adherence. This barrier to more advanced statistical analysis within Study 3 is explored in more detail below within the reflexivity section (pg.68). The quantitative results from Study 3 were then combined with the results from the qualitative study to increase the understanding of the Everybody Active 2020 intervention, which is described in detail in Chapter 5.

Study Four

For each outcome measure within Study Four (detailed above), a separate 2 (Group) x 2 (Time) mixed factors Analysis of Variance (ANOVA) was calculated to determine statistically significant main effects and interaction effects (F). Where significant effects were observed, separate Analysis of Covariance (ANCOVA) tests were calculated to ensure these were not observed as a result of baseline scores. Prior to completing the parametric ANOVA tests, data was cleaned and checked for the following assumptions as advised by Field (2013): (a) there were no significant outliers in any groups; (b) dependent variables were normally distributed; and (c) there was homogeneity of variance as measured by Mauchley's test of sphericity. If sphericity could not be assumed at the $< .05$. Greenhouse-Geisser was used.

Statistical significance was set at $p < 0.05$. Partial eta squared (η_p^2) effect size was calculated, providing an indication of what proportion of the variance in the dependent variable was attributable to the intervention. All calculations were performed using the Statistical Package for the Social Sciences (SPSS) Version 22.

3.4 Ethical Procedures and Access to Prisons

Schlosser (2008) in a review of navigating the ‘methodological landmines’ of prison research concerned with ‘high-risk’ groups, noted that it can be difficult for first-time researchers to successfully steer through the various research ethic boards required. This view resonated with the experiences encountered within the current programme of research. As there was no track record of conducting prison research within the supervisory team or the research institutes’ internal ethics board, there was an intense period of learning with regard to the correct process and flow of information between the review boards. The five boards from which ethical approval was sought and ultimately approved were:

- Sport and Exercise Sciences Research Institute (SESRI) Filter Committee
- Office for Research Ethics Committees, Northern Ireland (ORECNI)
- National Health Service, Research and Development (NHS R&D)
- Northern Ireland Prison Service (NIPS); and
- National Research Committee (NRC).

One of the associated challenges of ethical approval involving a multitude of boards, is that as applications for research progressed through the process, clarifications or changes required by one ethics board, subsequently required approval from all five ethics boards. This resulted in a pro-longed iterative process, particularly for the first study where the learning process was greatest, and which lasted over five months. However, the application process for the final study was achieved in just over two months as a result of the learning applied from the previous application processes, supporting Schlosser’s (2008) observation.

Following approval from each of the required ethics boards, the final decision on researcher access to any prison establishment rests solely with the prison governor. The governor can therefore decide, for any reason, that research may not be conducted regardless of all the approval acquired. For example, a governor may decide that the timing of the research is not compatible with their operational demands, or the topic in question may be judged too sensitive. Aware of this final hurdle, deliberate contact was made, and meetings held, with the governors of each of the prisons included in this programme of research (Hydebank Wood College & HMP Risley), prior to any final ethical approvals. The purpose of these meetings was twofold, i) to present the proposed programme of research and outline the potential benefits to prison management and the prison population, and ii) to establish a level of personal credibility and professional capacity to successfully carry-out the proposed programme of research with minimal disruption to their operational requirements.

3.5 Study Sample Frames and Procedures

Study 1: How Sport Based Interventions May Benefit the Psychological Well-being of People in Prison

A total of 16 adult stakeholders (14 males and 2 female) were recruited. Inclusion criteria was defined as having experience of designing, delivering, or managing the implementation of SBIs within prison populations, and the exclusion criteria was defined as having no experience in any of the same activities. A sample frame was constructed using purposeful sampling, supplemented with snowballing,

to increase the number of participants within the recruitment pool. From the sample frame of 18 individuals who were contacted via telephone and/or email, one declined to participate and one did not respond. Table 3.2 displays the stakeholder roles of those who agreed to participate. A broad range of sports were represented within the interventions discussed, including, football, rugby, circuit classes, gaelic football and hurling, volley-ball, orienteering and kayaking.

Participant Number	Role in Prison Based SBI, Organisation and Location	Participant Number	Role in Prison Based SBI, Organisation and Location
P1	Programme Delivery, CIC, UK	P9	Programme Delivery, CIC, UK
P2	Programme Delivery, CIC, ex-prisoner, UK	P10	Programme Delivery, CIC, UK
P3	Programme Delivery, CIC, UK	P11	Programme Oversight, France
P4	Programme Delivery, CIC, UK	P12	Programme Oversight and Delivery, Belgium
P5	Programme Delivery, CIC, UK	P13	Programme Delivery, Sports Governing Body, UK
P6	Prison Governor, UK	P14	Prison Based PE Teacher, Ireland
P7	Programme Delivery, Sports Governing Body, UK	P15	Programme Delivery, Professional Sports Body, UK
P8	Programme Oversight, Sports Governing Body, UK	P16	Senior Officer, Head of Prison Gym, UK

Table 3.2: Stakeholder Participants, (CIC = Community Interest Charity)

Table 3.2 shows that only three from 16 of the participants were full-time prison staff, which reflects a broad trend of the increased presence of third sector organisations as partners in criminal justice service provision, (Mills, Meek & Gojkovic, 2012). Potential benefits of these partnerships are the introduction of specialist expertise, cost-effectiveness, and relative independence from the criminal justice system. There is also a view however that an influx of ‘outsiders’ working with the criminal justice system can make it harder for officers to feel competent in their jobs and valued by management (Liebling et al., 2005). Mills et al., (2012) reported that such professional rivalries and hostilities were largely absent and, on the whole, TSOs working in prisons were respected, and no longer seen as a threat by frontline staff but were appreciated for the time and expertise they could offer

offenders and the alleviation of pressure on staff. It was therefore felt that the balance of participants reflected the current trends and would be best placed to provide insights into the research questions.

Subsequent to ethical approvals and participant recruitment, semi-structured interviews were conducted, as detailed previously in this chapter. Interviews averaged 75 mins in length and were conducted in a variety of formats dependent on the location of the interviewee. All NI based participants were interviewed face to face within their place of work. Those based outside of NI were interviewed either via telephone or skype. All interviews were digitally recorded and transcribed prior to the thematic data analysis process as detailed previously.

Interview topics covered within the guide included, intervention design, aims, perceived impact, whether the intervention included behaviour change theory, participant motivation to take part and access to the programme (See Appendix 1B for the Interview Guide).

Study 2: The Perceived Benefits of Everybody Active 2020: A Sport Based Intervention at Hydebank Wood College

Fourteen male participants from a total sample frame of 18 who signed up to the Everybody Active Programme, all aged between 18-24 years old, participated in the study. However, the number of participants fluctuated across the four study time points, as can be seen in Table 3.3 below. Reasons for the fluctuation in participant numbers were due to non-attendance at the programme on commencement, injuries sustained, movement between prisons, prioritising of other activities such as family

visits, and voluntary withdrawal. These specific barriers to conducting this research study in the prison are discussed further in Chapter 5.

I.D.	TP1 (1 Week Prior)	TP2 (after 4 weeks)	TP3 (after final week 6)	TP4 (2 month follow-up)	Total Data Collection Inputs
P1	✓	✓		✓	3
P2	✓	✓	✓		3
P3	✓	✓			2
P4	✓	✓	✓	✓	4
P5	✓	✓			2
P6	✓	✓			2
P7	✓	✓			2
P8	✓				1
P9	✓				1
P10	✓				1
P11		✓	✓	✓	3
P12			✓	✓	2
P13			✓		1
P14			✓	✓	2
Totals	10	8	6	5	29

Table 3.3: Number of participants and data collection time points.

Participant recruitment posters were placed in the prison gym and cell landings. Prisoners who had signed up to participate in the Everybody Active 2020 programme (EBA2020), were contacted individually and invited to discuss the research in person with the lead researcher in a private room within Hydebank. The aims of the research were discussed and it was explained that study participation was not mandatory in order to participate in EBA2020. The practicalities of implementing this final one-to-one stage of the recruitment process are discussed in the reflexivity section below.

Non-Prisoner Participants

The EBA2020 rugby coach and a senior prison physical education instructor (PEI) volunteered to participate in the research study. The coach was interviewed twice, at the beginning and end of the six week programme, to ascertain views on what the aims of the programme were, how to achieve them and what perceived benefits, if any, were gained from the programme. A senior PEI instructor was also interviewed, after 4 weeks of the programme to provide views on anticipated benefits of engaging an external coach.

Study 3: The Perceived Benefits of “State of Mind Sport”: A Pilot Programme at HMP Risley

A total of 57 serving prisoners at HMP Risley chose to attend the pilot SOMS program following advertisement on the prison wings, constituting the study sample frame. From this group, 47 (82%) volunteered to participate in the study and formed the intervention group. A further 28 prisoners, who chose not to attend the SOMS pilot programme, but were engaging with the prison workshops and education classes, agreed to participate in the study and were assigned to the control group. Therefore, total participants numbered 75 (47 intervention; 28 control). However, due to participant dropout at 8-week follow-up, sample size was reduced to 29 (17 intervention; 12 control).

Due to the complexity of prison research and the resultant nature of working with a convenience sample for a control group, it was not possible to implement procedures to ensure equivalency of, for example, age, conviction, sentence length,

between the two groups. Although perceived as a potential limitation to the study, in the context of prison research this is a logistical reality.

For the full participant cohort of 75 prisoners, mean age was 37.30, (*S.D.* = 11.01). Mean sentence length in months was 241.4, (*S.D.* = 436.9), and mean time served in months was 38.8, (*S.D.* = 73.7). The large standard deviation values observed are due to 13 prisoners serving indeterminate life tariffs. Table 3.4 below details participant age ranges and offences committed.

Offence	Frequency	Percent	Age Range	Frequency	Percent
Violence Against the Person	18	24.0	20-29	22	29.3
Sexual Offences	18	24.0	30-39	23	30.7
Drug Offences	17	22.7	40-49	20	26.7
Burglary	6	8.0	50-59	6	8.0
Fraud & Forgery	6	8.0	60-69	4	5.3
Motoring Offences	3	4.0			
Robbery	2	2.7			
Other	5	6.7			

Table 3.4: Frequencies for Offence Committed and Age Range

3.6 Reflexivity

The sub-sections in this methodology chapter have set out the formal research tools, processes, and samples included across this programme of research in prisons. However, what is not captured in these descriptions, are the informal processes or personal learnings which helped to make this research possible. The aim of this section is to provide insight into the researcher’s personal reflections as a neophyte prison researcher through the reflexive process. Pillow (2003) describes reflexivity as a commonly used and accepted method for qualitative researchers to either legitimise, validate, and/or question research practices and representations.

In the literature, detailed reflexive accounts of prison research often result from ethnographic studies, where the researcher has positioned themselves within the prison environment as on-going participant/ observer over a period of several months (Claes, Lippens, Kennes, & Tournel 2013; Drake & Harvey, 2014; Jewkes, 2012). As a result, they often describe the research process as emotionally demanding and costly, taking an affective toll following 8-12hr periods per day, for several months, performing an absorbing role in an intense environment. My own experience was more acutely focused on entering the prison and conducting one-to-one interviews or focus groups, and then leaving the prison. Therefore, I do not believe I was as exposed to the potential for negative affective toll that may have resulted from a more sustained daily observational/ participative presence. However, there remained emotionally demanding and/ or charged moments within my own research process that certainly required me to carefully navigate access, manage my identity, deal with unexpected scenarios, or adapt to the particular environmental requirements of a prison.

Securing Access and Entering Prisons

As detailed above under the Ethical Procedures and Access to Prisons section, there exists, for good reason, a very formal and lengthy ethical process to be navigated before gaining access to conduct prison research. Having been granted that access from review boards, the success of an application will ultimately rest with the governor of any given prison. Aware of this, I had made several attempts to contact the prison management of one of the institutions I was hoping to conduct my research in. With no existing network, these attempts were via cold contacts detailed

on Department of Justice websites and were proving, perhaps inevitably, to be unfruitful.

A breakthrough was unexpectedly achieved however when out for a run with a friend, who upon enquiring as to what my PhD was focused on and on hearing the topic, explained he had a neighbour who would be interested in that. It transpired that the neighbour was the Head of Rehabilitation within the prison service and following an introduction, and the production of a more formal briefing paper, a meeting was successfully arranged with the governor of the prison I was hoping to access. For me, and for my PhD, this was a significant breakthrough in what had been at times a very frustrating process of trying to seek access, and provided me with a level of confidence and optimism in the ability to successfully carry out my planned programme of research. It also highlighted the importance to me of networking and building relationships more broadly outside of the immediate academic environment and into the sector my PhD was primarily focused on.

Jewkes (2014) comments that despite prisons' prominent place in popular culture, they remain shrouded in myth and mystique. Upon reflection, I had not really considered how such myths and mystiques might cause me to react upon being granted access and entering a prison for the first time. My first experience however, which was to conduct an interview with a Prison Officer in charge of the Physical Education Department, highlighted that the unfamiliar and mythical environment did bring to the fore an unexpected mix of insecurity and confusion. In turn, these feelings led to somatic reactions usually associated with stress or anxiety (e.g., sweaty palms, slight tightening of the chest). Although these reactions were

relatively short-lived experiences, which dissipated following a meeting and greeting, and tour of the prison, they were present on each occasion I entered a new prison to conduct research. Sparks, Bottoms and Hay (1996) commented that prisons are special places, as there are few other institutional settings where the extremes of social life are so starkly represented and enacted. My own experience would resonate with this view, and despite learning to anticipate the spike in somatic activity upon entering a prison for the first time, I remained acutely aware of the unique environment I was in, and appreciative of being granted access to it.

Conducting Research with the Prison

Becker (2008, p.90) notes there is a tendency for impersonal, passive writing that is commonly regarded as “scientific” to hide the bits that most readers of prison research want to know. However, the potential for being more open and revealing needs to be balanced with the criticisms of “prison tourism” (Piche & Walby, 2010) and the author who adopts an ‘I-was-there’ tell all persona in their writing. With this balance in mind, I have provided the following insights as examples of my own challenges of conducting prison research, whilst remaining respectful of the privileged access I was granted and openness of those who participated in my studies.

Previous prison research has described the difficulty in navigating ‘insider’ and outsider’ boundaries”, the juxtaposition of wanting to be both visible and invisible and whether positioning oneself in the field disturbs and contaminates it (Rowe, 2014). My own research within Hydebank (Study 3) required me to conduct interviews between the hours of 10:00 - 12:00 or 14:00 – 16:00, with the onus on me

having been granted open access, to locate and conduct interviews with each individual participant, rather than this being organised by the prison management. The reason for this was that if interviews were formally scheduled into a prisoner's daily timetable by prison management (insiders) and subsequently not attended, it would negatively impact their privileges. Although this afforded the participants welcomed autonomy with regard to their participation, the outcome of this was that participants did not always want to participate as agreed (with an outsider), which is evident in Table 4.1, detailing the inconsistent participation over the four time-points.

Another outcome of no fixed time being set for the interviews by prison management and the changeable commitment of participants, was that considerable time was spent by myself locating participants, in various scheduled workshops, spread over a large geographical area within the prison. I also had to learn to adapt to the short-term focus of my participants. Despite going into Hydebank a week in advance of interviews to arrange the meetings face-to-face for the following week, participants would often commit but then forget. I therefore changed this approach to trying to briefly see each participant the day before scheduled interviews to confirm. Therefore, although the number of interviews secured within each time-point might normally have taken only a matter of days to achieve, securing a sufficient number of interviews and rescheduling with participants usually required me to visit the prison daily for two weeks.

My experiences of navigating the prison grounds unescorted to locate participants also resonated with the mixed feelings of wanting to be both invisible

and visible. Wanting to be invisible, as I was clearly an ‘outsider’ and therefore at times attracted unsolicited attention from other prisoners wanting to know who I was, what I was doing, or how I felt about certain topics, which I was not there to discuss and did not want to engage in; whilst also needing to be visible to ask questions regarding the whereabouts of participants and the directions to different workshops (particularly during time-point one, when unfamiliar with the layout).

The question of whether positioning oneself in the field disturbs and contaminates it as highlighted by Rowe (2014) was brought into sharp focus for me on two occasions. The first occurred during the Everybody Active 2020 rugby intervention (Study 3), when I would attend the start of each rugby session to record who was there and then leave shortly after. However, on one occasion, two minutes into the session, one of the participants sustained an injury and had to be carried off. As a result one of the participants shouted to me, *“Hey mister, can you play, c’mon, otherwise we have uneven teams?!”*. My research methods were focused on the semi-structured interviews and questionnaires as detailed above, not observation of the rugby training sessions, and certainly not participating in the sessions. However, whilst I was clear that remaining at the prison and participating in the rugby training session that evening was not an option for me as a researcher, on a personal level I felt compromised and guilty. Compromised in that my refusal to play highlighted the clear boundaries of what I would and would not participate in as a researcher; and guilty, as many of those participating in the session had volunteered to contribute to my study and yet I would not reciprocate when asked for assistance by them. After politely declining, the coach of the session explained I could not participate for health and safety reasons and they continued playing with their uneven teams.

The second occasion when I felt my presence acutely disrupted the environment was during my data collection for time-point three with Hydebank. Throughout the first two data collection time-points, many of my interviews were conducted in the onsite prison café, with the prison officers granting permission for participants to leave their workshop and return following the interview. On this particular occasion, I approached the workshop gate and could see my participant sitting just inside. Having exchanged greetings, he confirmed he was happy to participate in the interview and suggested that we go to the coffee shop. I agreed on the assumption this would be acceptable as it have been on previous occasions. However, the prison officer in the workshop explained that if the participant wanted to be interviewed it would have to take place in the small office space within the workshop, as there were tighter restrictions around the amount of time prisoners could spend in the cafe. This refusal quickly escalated into an angry and heated exchange between the participant and the prison officer about why the interview could not be held in the café, with the prison officer asking the participant to apologise to me for putting me in an awkward position. The immediate outcome was the participant becoming very frustrated, exclaiming “f*ck the interview then”, and declining to participate.

Aware of how difficult it was to secure access and complete interviews, this was a very frustrating scenario and one where I felt completely powerless to intervene. It was also directly relatable to the question posed by Earle (2013), that is, how does one resolve the inevitable tensions that arise from positioning oneself in the field, or being positioned by others on one side or another? With no previous

experience to draw on, my approach was to leave and return to the workshop in 20mins and ask again if the participant would like to do the interview as scheduled. Thankfully, the tension had dissipated and the participant who was now calmer and willing to conduct the interview within the workshop office. My view however was the participant was noticeably more negative about his environment and the impact it had on his well-being, than he had been during previous interviews. This experience highlighted to me the micro-relations researchers must enter into in order to negotiate the access to participants on a daily basis (Drake & Harvey, 2014), and to never assume I had ‘mastered’ the workings of the prison as they could change at any time depending on security concerns, regime structures, or pressing staff/prisoner concerns.

There were other occasions when I had to manage the role and/or input of prison management to ensure I was capturing reliable and valid views of the prisoners. One such occasion was when I was conducting focus groups within HMP Risley, and a visiting senior prison service official, who had played a facilitative role in securing my access locally, requested to sit in and observe the focus group (as they had a role on a special projects board concerned with mental health and well-being in the prison). In responding to the request I had to be mindful of maintaining civility to my hosts in the field and recognise the imposition my research requests had made. Therefore, granting them their request to observe in return for the access granted (albeit implicitly) felt like the correct approach to take, following the agreement of the prisoners in the focus group. The room was comfortably large enough to accommodate the request and my experience had been that prisoners were not afraid to speak freely in front of prison management in any event. However, an

unexpected interruption occurred, when toward the end of the focus group, the observer politely challenged a collective view being presented to me by the group. I was conscious that a direct closing down of the challenge made may have created a scenario perceived as a play for power between an outside and an insider. I therefore allowed time for the participants to briefly respond to the individual, then reminded everyone of the tight timeframes and a requirement to focus on the agreed topics. This appeared to work well in the moment, satisfied all parties and maintained the required focus. However, it did highlight to me the need to anticipate and put clear boundaries in place for future requests.

The Role of Gender

Prison often requires men to adopt and project hegemonic prison masculinities (De Viggiani, 2012), and previous reflexive accounts of prison studies have detailed how the role of the researcher can be drawn into stereotypical displays of macho-culture. Ugelvik (2014) depicted how prisoners within his study set out to make a “proper” man of him, as opposed to the physically weaker “academic half man” that he was in their eyes, with requests to engage in arm wrestling and the feeling of muscles. Similarly, while a female researcher would not have been tested in the same way, there are examples of women undergoing rites of passage in men’s prisons (Claes, Lippens, Kennes, & Tournel 2013). My own experiences were largely devoid of any such experiences, possibly because I was not conducting ethnographic research and therefore not observing for long enough periods of time within group settings to be drawn into similar behaviour. Only one example stuck in my memory. Following the completion of a one-to-one interview in a private room, myself and the participant returned to the group of five young men sitting within a

workshop. I was offered a cup of tea, and being respectful of the time they had afforded me, I accepted. Following a string of questions which I was asked about sport (not unexpected given they were aware of my research topic), they proceeded to ask a string of questions about my experiences of sex, whilst bragging about their own. Perhaps because of the age difference, they were 18-24 and I was 39, I did not find this a threatening or uncomfortable 'test' of my own masculinity. I simply replied that I was a happily married man and I would not be answering such questions, and excused myself. They laughed and continued their own questioning and bragging amongst themselves.

Management of Self

Throughout the course of my prison research, my experience of how I presented myself with the participants aligned with Goffman's view of impression management (Goffman, 1959). He argued that people engage in 'front stage' and 'back stage' performances in different spheres of life, and when an audience is present, we as social actors behave differently than when there is not. When conducting my interviews and focus groups, my front stage performance was one of always being the empathetic listener - open, accommodating, empathising, and non-judgmental. At times, depending on the personal story being told or the category of prisoner I was working with, this proved challenging. Challenging because the experiences I was empathising with were so far removed from my own, or because I was aware of the nature of an offence committed (although I never proactively sought this information), which my back-stage performer might have been actively critical of under different circumstances. To deal with these challenges, my approach was always to be very clear about my role within the research, to objectively focus

on and enquire about the participant(s) views of their psychological well-being and the perceived benefits of sport-based interventions. I also kept in mind the prevailing view of the prison governors I met throughout my research, that the removal of liberties was the punishment for crimes committed, and following that, every individual had equitable rights to a positive quality of life, both mentally and physically.

Overall, when I reflect on my experiences of conducting prison research, as highlighted previously, I consider it a privilege to have been granted relatively unique access to these institutions. Similarly, although the ethics and access requirements were lengthy and at times very frustrating, I always remember my supervisor saying of the complex process – *“this is how you know you’re doing research that matters”*. I was always struck by the openness of the participants, who following relatively short periods of time becoming familiar with me and my research, were candid and up-front with me regarding their psychological well-being. I therefore believe the methods used and findings presented throughout the subsequent three studies and overall discussion, are objective, valid and reliable and provide valuable insights and recommendations for academics and practitioners interested in this field.

4. How Sport Based Interventions Benefit the Psychological Well-being of People in Prison

4.1 Abstract

Purpose: In response to the outcomes of the review the primary aim of this study was to identify how sport based interventions impact psychological well-being within the prison population, considering both the hedonic and eudaimonic perspectives, namely the experience of positive affect and healthy psychological functioning and self-realisation. The study focuses on the perspective of those involved in either the design, delivery or oversight of sport based interventions within prison, collectively referred to as stakeholders throughout. Results were presented within a thematic framework to aid the future design and delivery of sport based interventions within the prison environment. A second aim was to link the themed framework to psychological theories of health behaviour change, a quality assurance recommendation by the Medical Research Council, but not achieved to date in the literature. **Methods:** A total of 16 stakeholders were interviewed to ascertain their views on constituent components of the interventions contributing to psychological well-being. Inductive thematic content analysis was adopted and the emergent themes are discussed within the context of extant psychological theory and recent relevant research to understand how they may benefit psychological well-being. **Results:** Six themes emerged, reflecting the spoken words of participants: 1) “Relating and Relationships”; 2) “Sense of Achievement”; 3) “Sporting Occasions”; 4) “In Their Hands”; 5) “Facing Forward”; and 6) “Creating a Life Rhythm”. The psychological theories identified as underpinning these themes were Basic Psychological Needs Theory, Self-Identity Theory, and Self-Categorisation Theory. **Conclusions:** Collectively, the themes and psychological theories identified, offer a new framework for the effective design and delivery of sport-based interventions within prison that will potentially maximise benefit to prisoner psychological well-

being. The new thematic framework includes constructs from three psychological theories, suggesting that one theory alone cannot account for the complexities of designing interventions to enhance psychological well-being for prisoners.

Researchers are invited to go beyond designing ad-hoc programmes and to adopt and evaluate the proposed framework in future trial based research.

4.2 Introduction

Psychological well-being relates to a person's psychological functioning, life-satisfaction and ability to develop and maintain mutually benefiting relationships (Stewart-Brown & Janmohamed, 2008). It comprises both the hedonic perspective, that is, the subjective experience of happiness and life satisfaction, alongside the eudaimonic perspective, focusing on psychological functioning, good relationships and self-realisation. Across multiple judicial jurisdictions, the psychological well-being of people in prison has been repeatedly identified as a serious issue which should be given priority status and afforded the appropriate resources to enable a multi-agency approach. These actions are particularly pertinent if success in tackling poor psychological well-being is to be realised (United Kingdom - Mental Health and Criminal Justice Report, 2016; United States - Travis, Western, and Redburn, 2014; Australia - Australian Institute of Health and Welfare, 2015).

Although intervention programmes vary in content, it has been shown that regular involvement in sport can have a beneficial effect on social, physical and psychological well-being (Biddle, Mutrie & Gorely, 2015; Lancet, 2016; WHO, 2016; Woods, Breslin & Hassan, 2017). In line with the European Sports Charter (Council of Europe, 2011), sport is defined as all forms of physical activity, both casual and organised, competitive or non-competitive. Studies within non-prison based populations have demonstrated involvement in sport can result in decreases in depression and anxiety, and increases in self-perceptions (Gordon et al., 2017; Mason, Curl & Kearns, 2016; Fox, 1999). Furthermore, systematic reviews of the perceived benefits of sport and physical activity from childhood through to old age (Arent, Landers & Etnier, 2000; Biddle & Asare, 2011) and specifically within

prisons (Woods et al., 2017) have reported positive effects on psychological well-being.

Within the prison population, multiple studies have reported a myriad of positive effects sport can have on psychological well-being and ill-being (Amtmann & Kukay, 2016; Battaglia et al., 2014; Buckaloo, Krug & Nelson, 2009; Cashin, Potter & Butler, 2008; Gallant, Sherry, & Nicholson, 2014; Martin et al., 2013; Martos-Garcia, Devis-Devis & Sparkes, 2009). Positive effects are reported in life-skills, self-esteem, self-efficacy, confidence, hopelessness, depression, mood and resiliency. These findings primarily focus on the views of the prisoners, and relate to studies of people in prison engaging with sport through regular physical activity in the gym, or for example, participating in recreational football several times a week. Previous studies have also examined the perceived benefits of facilitated sport-based interventions (SBI) within prison, also focused primarily on the prisoners' perspective. A typical SBI would be the delivery of 8 to 12 week "sporting academies", which have sport participation as the main focus/activity, but include specific aims related to, for example, personal development or employability (Dubberley, Parry & Baker, 2011; Leberman, 2007; Meek & Lewis, 2014a; Parker, Meek & Lewis, 2014; Williams, Collingwood, Coles & Schmeer, 2015). However, the lack of detailed studies focusing on the perspectives of stakeholders responsible for the design and delivery of SBIs within prison represents a significant gap in the literature, that if not filled will have implications for programme effectiveness in enhancing well-being.

Parker et al. (2014) reported on the outcomes from a 12-week sporting academy, which facilitated the development of sports coaching skills, qualifications

(e.g. Sports Leaders awards), life-skills mentoring and pre-release resettlement support. The authors highlighted positive physical, social and psychological benefits, including: feeling physically fitter, increased self-esteem and positive outlook on life in preparation for reintegration into society. In a separate study, Meek and Lewis (2014a) provided a detailed ideographic account from prisoners and prison staff, focusing on the perceived benefits of football and rugby based sporting academies, provided within an English prison. The academies were positioned as an alternative way of engaging young men in identifying and meeting their community re-entry needs associated with the transition from prison. In this study, a cohort of 79 young men, (aged 18-21 years) reported benefits on prison life, preparation for release, improved attitudes toward offending, positive thinking and behaviour within prison, and on release. The authors also reported increased desistance from crime and enhanced prisoner self-esteem. Mindful of these positive outcomes, and similar perceived benefits on prisoner psychological well-being detailed within a systematic review of 14 prison-based SBIs, Woods et al. (2017), highlighted that new research was required to further our understanding of the complexities of how such interventions are effective, in turn enabling practitioners to maximise prisoner benefit. A consistent exclusion of any psychological theory in the design of prison based SBIs, in contrast to Medical Research Council (MRC) guidance encouraging sound theoretical inclusion in health behaviour change interventions (Moore et al., 2015) was also highlighted by Woods et al. (2017), and represents a gap/opportunity for future research to address. This call for a greater understanding of the complexities which underpin effective SBIs within prison resonates with the wider use of SBIs with at-risk individuals within communities, not only across the UK, but worldwide (Jones, Edwards, Bocarro, Bunds & Smith, 2017).

Studies have examined the use of sport within at-risk communities to simultaneously promote psychological well-being at an individual level, whilst also delivering improved social cohesion and/or crime reduction in the communities within which that individual resides (Cameron & MacDougall, 2000; Coalter 2009; Nichols, 2007; Nichols & Taylor, 1996; Taylor, Crow, Irvine & Nichols, 1999; West & Crompton, 2001). The use of sport is often credited with playing a distinctive role in achieving non-sporting development goals, offering both at-risk individuals and prisoners alike, an alternative activities-based delivery method with which they typically engage better (Nichols, 2007). However, caution is sounded that the crucial psychological benefits are largely by-products of broader sports development objectives (Nicholls, 2004), and the empirical evidence consistently warns of disconnect between the positive views of practitioners regarding the transformational power of sport, and those conducting the research (Coalter, 2013; Lubans, Plotnikoff & Lubans, 2012; Hartmann & Kwauk, 2011; Kay, 2009; Sandford, Armour & Warmington, 2006).

Criticisms often centre on difficulties in deconstructing and attributing causality (Collins, Henry, Houlihan & Buller, 1999), and the centrality of sport to the resultant benefits (Holt, 2016; Coalter, 2013). Holt (2016), mindful of the view expressed by Parkinson (1998), that sport, like most activities, is not a priori good or bad, but has the potential of producing both positive or negative outcomes, suggests the more constructive question centres around enquires on what conditions are necessary for sport to have a beneficial impact. This suggestion is further echoed in the more recent call by Woods et al. (2017) for a greater understanding of the complexities involved in SBIs delivered within prisons and a need to identify

appropriate psychological theory to guide SBI design. The importance of a number of psycho-social mechanisms within the prison population were identified by Parker et al. (2014) and Meek and Lewis (2014a), such as improved self-perceptions, social connectedness and mood and emotions. However, there is a lack of detailed exploration from a stakeholder perspective, those responsible for intervention design and/ or delivery, of how such SBIs benefit the psychological well-being of people in prison. Given the centrality of these stakeholders to the realisation of potential positive SBI benefits, a detailed exploration of their views is deemed worthy of investigation. The current study is therefore a response to the paucity of research exploring how stakeholders believe SBIs effectively contribute to prisoner psychological well-being and the lack of psychological theory explaining the link between what stakeholders perceive to be the constituent intervention components and improved prisoner psychological well-being.

Therefore, the study aims are twofold: 1) to understand the complexity of how SBIs can benefit the psychological well-being of people in prison from the stakeholder perspective and present the results within a thematic framework; and 2) to link the framework to existing psychological theories of health behaviour change. Through interviews with a broad cross-section of those invested in the provision of SBIs in a prison setting, their views will inform a framework of key components, both sporting and non-sporting, required for the effective design and delivery of prison-based SBIs. Furthermore, the research will reflect on, and discuss, the emerging framework in the context of appropriate psychological theories which, it is suggested, should collectively underpin the development and delivery of SBIs.

4.3 Method

Participants

A total of 16 adult stakeholders (14 males and 2 female) were recruited (see Table 3.1). For a detailed description of the study sample frame please refer to Chapter 3 (Methodology).

Participant Number	Role in Prison Based SBI, Organisation and Location	Participant Number	Role in Prison Based SBI, Organisation and Location
P1	Programme Delivery, CIC, UK	P9	Programme Delivery, CIC, UK
P2	Programme Delivery, CIC, ex-prisoner, UK	P10	Programme Delivery, CIC, UK
P3	Programme Delivery, CIC, UK	P11	Programme Oversight, France
P4	Programme Delivery, CIC, UK	P12	Programme Oversight and Delivery, Belgium
P5	Programme Delivery, CIC, UK	P13	Programme Delivery, Sports Governing Body, UK
P6	Prison Governor, UK	P14	Prison Based PE Teacher, Ireland
P7	Programme Delivery, Sports Governing Body, UK	P15	Programme Delivery, Professional Sports Body, UK
P8	Programme Oversight, Sports Governing Body, UK	P16	Senior Officer, Head of Prison Gym, UK

Table 4.1: Stakeholder Participants, (CIC = Community Interest Charity)

Procedure

Ethical approval was granted from the Office for Research Ethics Committees, Northern Ireland (ORECNI), the National Health Service, Research and Development (NHS R&D) committee and the Northern Ireland Prison Service (NIPS). Subsequent to ethical approvals and participant recruitment, semi-structured interviews were conducted, facilitating sufficient structure to ensure a series of consistent and comprehensive topics were covered in each interview, whilst providing flexibility to ensure that interviewees' insights could be identified and developed (Bryman, 2016). Interview topics covered within the guide included, intervention design, aims, perceived benefit, whether the intervention included behaviour change theory, participant motivation to take part and access to the programme.

Data Analysis

Thematic content analysis was undertaken to inductively search for concepts, categories and themes emerging from the data collected. Braun and Clarke (2006) describe thematic analysis as a method for identifying, analysing and reporting patterns (themes) within the data. The six-step process adopted, as advised by Braun and Clarke (2006), is outlined in detail in Chapter 3.

The reliability and validity of the analysis process and final theme construction were established through a number of checks conducted throughout the study to ensure accurate and rigorous findings are presented to the reader (Sparkes, 1998). First, following verbatim transcription of the interviews, each participant was provided with a copy of their transcript to ensure it accurately reflected their views expressed and allow for clarification; second, the study included extensive participant quotes to elevate the validity of the findings, with the participant I.D. numbers from Table 1 indicating the origin of each quote used; third, all raw-data quotes were subjected to an audit trail (a mapping from the participant's spoken word to theme creation); and finally, detailed discussions were held between the lead research and his supervisors to explain and challenge emergent concepts, categories and themes. An example of the mind-mapping process engaged in Step 5 - to help identify and refine emerging concepts, categories and themes can be seen in Appendix 4.

4.4 Results

Table 3.3 displays six themes, reflecting the spoken word of study participants, which emerged from the analysis, and their supporting sub-categories. Following completion of the thematic content analysis, the emergent themes were

considered in the context of appropriate psychological theories, which are suggested as a starting point to bridge the existing gap in theory driven sport based interventions identified in previous prison based research (Woods et al., 2017).

Theme / Category	Sub-Category
1. "Relating and Relationships".	1.1 Improved social ability and mobility
	1.2 Respect and accountability for others
2. "Sense of Achievement"	2.1 Individual and shared achievements
	2.2 External recognition
3. "Sporting Occasions"	3.1 Novelty
	3.2 Escapism
4. "In Their Hands"	4.1 Choice of activities
	4.2 Stakeholder status
5. "Facing Forward"	5.1 Reduced transitional anxiety
	5.2 Openness to signposting
6. "Creating a Life Rhythm"	6.1 Structure to prison Life
	6.2 Transitional structure

Table 4.2: Emergent themes and sub-categories

Theme: Relating and Relationships

The development of social skills and the forging of better relationships through sport were described as key to improving psychological well-being. The opportunities for new or improved relationships existed between the prisoners, prison staff and prisoners, external facilitators and prisoners and, prisoners and the community. These findings reflect and extend the views of prisoners reporting improved relationships and communication skills through sport within prison (Dubberley et al., 2011; Leberman, 2007; Meek & Lewis, 2014a; and Gallant et al., 2015). This theme manifested through two sub-categories:

Improved Social Ability and Mobility

The involvement of prisoners in the SBIs, particularly team-orientated sports (the majority), enabled the development of new and improved ways of communicating. The prevailing view was that the sports team environment provided a unique setting to build camaraderie around a shared experience and goal. This enabled communication that was more measured and calm, increased understanding of others points of view and a willingness to both give and receive meaningful praise. Often, having built up sufficient goodwill in the sporting environment, classroom based activities were used to further cement these social abilities. As P1 explained:

“You can see the group dynamic change as a result of those conversations and it’s that kind of openness, the sports there, but it just creates social abilities, so it’s whether or not you want to explain yourself and see what others think of you in a nice supportive environment... and also relationship-ability with other people, they don’t just have to shout and scream or lose their temper, they can start to question or explore and debate without it becoming an argument, you know, a fully-fledged battle.”

The nature of the time invested over a course by the facilitators in relationship building, through the sporting activities, and often in subsequent one-to-one sessions with prisoners, also benefitted social abilities. This appeared to create a unique trusting relationship which enabled prisoners to talk more candidly and openly, benefitting their psychological well-being. Even for interviewees based almost exclusively within the prison full-time, but not prison staff, there was a removal of the usual power imbalance barrier impacting prisoner/ staff relations. As P1 explained:

“We come in and we’re not wearing a uniform, well we’re wearing a [organisation name] uniform, so if we put a survey out, if we sit down with them, we’re able to listen to them, we have to follow rules but we’re not defined by them if that makes sense, so the relationships is very much between us and the men on the ground.”

An additional key difference in this relationship (compared to that of prisoners and prison staff) is the ability of prisoners to contact these individuals on release, have them act as referees on CVs, or even have their families contacted by the individuals prior to release to assist with issues, for example, getting their children involved in sporting activities in the communities (resulting in a positive impact on the parent still in prison).

When put to interviewees that a similar relationship (and other benefits) could be achieved through other activities, arts or crafts based for example, they often agreed. It was felt that being passionate enough about ones’ delivery tool (e.g., sport, the arts), and clear in your messages, could lead to similar benefit(s) being achieved. P3 commented:

“It’s how you include it [the activity, e.g. sport] in the message. You’re right you could argue you have what’s his name from the TV, Gareth Malone. He would argue you could do it with choirs. He could do it with choirs. He probably could, but I think we have a distinct advantage because we’re using a method which has a lot of life skills associated with it. I know as many coaches that would totally gloss over that and would only teach you to become a better rugby player, wouldn’t even focus on the other skills. It does come

back to that individual and why we're doing it and understanding it as well and believing in it.”

As insinuated toward the end of that quote, there was an unsurprising belief that even with the possibility for other tools to deliver a similar benefit, sport had an advantage in: a) being an easier sell in prison; and b) allowing life skills to be embedded more readily.

Improved social mobility was related to both the immediate prison-based benefit, alongside longer term benefits. Regarding the former, it was highlighted that involvement in sport afforded opportunities to meet and engage with prisoners from other landings, and in some rare cases within mixed prisons, engage with the opposite sex in mixed classes. P6, a prison governor, noted their experience:

“[It’s about] delivering improved relationships through sport with offenders, we have males, females, prison officers all training together, which is unique; there is inherent risk, but it’s our job to manage that... where possible we try to replicate society, mixed sessions have been a positive experience... have led to respect on site.”

There was also a perceived longer term benefit, with the improved social abilities underpinning greater self-belief for mobility and integration within their communities upon release, or interaction with visiting members of the community. Social mobility was also considered important in relation to forming and realising the opportunities linked to career aspirations.

Respect and Accountability for Others

P14, a PE teacher working full-time within the prisons for 10 years, commented:

“The way they'd [prisoners] speak to each other, the way they'd speak to officers, the way officers speak to them, is just - I was shocked. I was shocked at how people can treat people like that. Especially people who are vulnerable in society.”

This PE teacher's view, shared by other interviewees, was that involvement in SBIs, and the shared experiences within that, produced a humanising effect, whereby mutual respect was earned and then shared. P9 explained:

“That's a really useful tool [sport] in terms of building the relationship because we can have, there's a bit of camaraderie, there's a bit of respect if we're training alongside them. We give them a bit and they in turn, they give us a bit back, so that essentially would be one of the key ingredients in building the relationship, is that wee bit of fitness together.”

P5 recounted an example where sport was used specifically to facilitate mutual respect between prison staff and the prisoners, through the use of the climbing wall. This exercise was in preparation for their outdoor-based SBI which would involve both prisoners and prison officers (PO) as participants, with the specific aim of improving relations, as requested by the governor:

“As session went on, we introduced bee-laying, so the idea was the prisoners would have opportunity to bee-lay each other, so that's being in control of the rope for the person that's climbing, so after a while then the POs felt confident enough to allow the prisoners to bee-lay them, so it was a real.. you know..

they were really nervous at the start, but once climbed once or twice, that trust was really there, so was interesting to see how that developed, as it took a lot of trust for the prison officers to allow the lads to bee-lay them... they were very supportive of each other, moving hands and body positions, you know' if you try this, that's how I got past that point'... so really starting to communicate with each other constructively."

Accountability to, and for, other individuals, not often experienced by many of the prisoners, was an important element of the SBIs. This was an perceived benefit reported both within and away from the sports environment. Within a match scenario, it was accountability to other team-mates, however, this extended beyond the touchline, specifically in the form of becoming a "sports mentor", an option for prisoners who had completed previous SBIs. P5 explained the role of sports mentors:

"They will give constructive criticism [to current participants], but they'll also understand that it's good to end with a positive. Tell them what they were doing right as well. They're there [on the pitch], and again it's giving them responsibility. One of the biggest things which we find out in the regional centres externally as well, is when you have a mentor, maybe that has been inside, they've never had responsibility for other people. It's one of the things that really surprised me, is that, [they'll say] - I love having that, now I'm responsible for him. Speaking to mentors, what they've had is, it's the only time that they've had responsibility for something. In that sense it's really important to them."

These experiences resonate well with the development of human potential inherent in positive eudaimonic psychological well-being.

Theme: Sense of Achievement

The use of SBIs offered prisoners an easy, or at least relatively easy, to reach “platform” to simply “feel good about themselves” through reflecting upon their achievements. Certainly, prisoners could achieve in non-sporting activities, but as P14 put it, “*sport was definitely an easy sell in prison*” and therefore could facilitate this benefit more readily than other activities. Two sub-categories were identified within this theme:

Individual and Shared Achievement

Participation in SBIs offered opportunities for prisoners to experience an immediate sense of achievement. This could result from completing a demanding physical activity, as P5 recalled from an orienteering intervention:

“One of the lads, you know, they obviously smoke regularly, yeah... like little trains... he walked about about a kilometre into it, lay down and basically said, na, that's me - not doing anymore of this, and you can take me back to prison.. I'm done... he wanted to go back at that stage, but obviously, [with a] bit of encouragement and a bit of banter from the prison officers and then his fellow prisoners... he got through it and he actually really enjoyed it at end of day, he was the one was bouncing around at the end in the car park, you know, having a bit of fun... got a real buzz from it.. a sense of achievement - really good to see.”

Similarly, playing against another team, particularly if that is an outside team visiting the prison (one of the final components of several of the SBIs discussed), offered prisoners unique opportunities to feel positive about themselves through a sense of achievement and recognition.

“Playing against themselves doesn't have the same ring to it. As soon as you put in another team from outside who are regular rugby players, this is chance for them to show. They can show the guards. They can show the prisoners. They can show the Governor. This is what we've learned. We're not all bad.”

External Recognition

The receiving of associated awards and qualifications within the prison are highly valued, as P16 explained:

“I've never had a certificate in my life before, is what they say to you. Never, for anything... it's a huge big thing, it's only a bit of paper that's laminated, means nothing to me but, it's huge to these guys, really is, and their smile on their face when you're there shaking their hand and you're giving them an award, it's immense.”

As commented above, SBIs are clearly not exclusive in the presentation of certificates and awards in prison, but they appear to offer a more attractive environment in which those awards and qualifications can be attained. Recognition, not just from those inside the prison, but also from family members invited to attend end of academy award ceremonies was highly valued. This provides a platform for participants to present a different identity to meaningful others in their lives, benefitting psychological well-being. However, this can also have a negative impact,

if participants are faced with the situation of significant family members not attending such events. As P15 explained:

“There's also an opportunity where they can receive their certificates, so we bring in their families in as well, which again is an area that's really difficult for these boys - of the 20 that would graduate, erm, probably three parents would turn up.”

Theme: Sporting Occasions

The perceived benefits of sporting occasions and their associated environment(s) on the psychological well-being of people in prison emerged as a key theme and was supported by two sub-categories.

Novelty

It was explained that prisoners were often experiencing the sport being played for the first time in their lives. Football and resistance training are the most popular sporting activities within prison, however the SBIs represented a new diversity of sports, including for example, rugby, cricket, volleyball, orienteering, football, canoeing, swimming and Gaelic games, the latter indigenous to Ireland. Critically, from a service provider point of view, the novelty facilitates increased listening and attention from the prisoners, which enables practitioners to deliver key messages, both sporting and non-sporting. As P3 commented:

“[They were] Engaged because it was [via] physical activity. There was only one person who'd ever done rugby before. That helped us because what we found... even the PTI [physical training instructor] said, it's great when the prisoners are responding to you. They're actually listening because they don't

know. If we'd gone in and done football, we'd never have the same uptake because everybody's a football expert in Scotland... whereas in rugby, because they didn't know how to play the game, they had to listen to the coaches. We got their attention quite quickly. The sport really worked."

It was also perceived that novel sports environments removed prisoners from their comfort zone, whether that was delivering a coaching session, or completing an endurance based activity. Stretching them beyond their comfort zones, mentally and physically, removed personal barriers and enabled new, more positive ways of thinking and interacting.

Escapism

Sporting occasions within prison were perceived as offering an 'escape' both mentally and at times physically (if participating in sports outside the prison, e.g., kayaking) from the often stressful confines of prison. P10 explained, "*A lot of the lads will say to me they forget they're in prison when they're out on the AstroTurf especially*", P16 further elaborated, "*They can say yes, I'm in prison technically, but for that hour and a half I can be anywhere in the world.*" Being granted Release on Temporary License (ROTL) to participate in an outside SBI, brought further psychological well-being benefits as explained by P5, "*just the novelty of standing on the balcony and looking outside across the water, that was enough for them, they were really happy.*"

Theme: In Their Hands

The SBIs or simply the prison gym, offered scope for prisoners to exercise a relative sense of empowerment and autonomy, otherwise rare inside and/or outside of the prison. Sport offered them an environment where they could be a voice that mattered. Two sub-categories contributed to this theme.

Choice of activities

SBIs provided participants with the opportunity to choose to engage with new sports, which often, prior to entering prison, they would not have been afforded. Practitioners and prison staff spoke of a desire to offer diversity within their SBIs, and a need to create an offering which reflected that of outside the prison. As P12 explained:

“Our goal is to set up and offer the same as the offer outside of prison, that's the goal - the prison sentence, or the loss of freedom is the sentence the offenders get, everything else we try to do, we try to copy the programmes outside prisons, inside prisons, of course there are a lot of limitations - you know of the biggest is of course, finances, but if there is coming up a new fitness hype, like insanity, we teach that in prison - if we see eh.. the start to run programme, or the programme you know (Couch to 5K) and we saw that coming up in society, we also copy that inside of prison.”

Stakeholder Status

Prisoners were viewed as service users of the SBIs, who should be consulted about what that offering looked like and how it might be presented. Of course, whilst not possible to action all requests, many were taken on board and implemented. P1 explained that part of their role was to *“keep my hand in with what people want,*

rather than what I think they want”, and this was achieved by talking to prisoners and conducting surveys. Outside of specific SBIs, this sense of being a valued stakeholder was also evident in the gym, captured in this quote from P16:

“It’s not the first time a prisoner has come to me with a [request for a] new bit of equipment and I’ve purchased it, purely because no one had thought on it before and I deemed it financially available and a good idea, so yes I’ve bought stuff in the gym before.... you can see the amazement and they encourage others to do it. So they get the buzz from their amazement but they pass the buzz on. It’s like a peer mentoring so they go to their mates and it encourages more to use more equipment and encourages them to have other ideas because they actually see the ideas being put into place.”

Within some of the SBIs, stakeholder status also meant that responsibility was handed over to the prisoners to organise sub-sections of the activities, or indeed an entire independent programme of sports events with budgetary control. On one SBI for example, the prisoners have to organise and run a tag rugby event for external teams, hosted inside the prison. From timetabling matches, to organising catering, to awarding man of the match, they are responsible for all aspects of the event. In another example, prisoners were tasked to organise a series of summer sporting events for the entire prison, called the “Castle Games”. A budget of 750 euros was provided and all decisions were made by prisoners’ committees. It was noted, that this sense of empowerment stands in stark contrast to many other conditions in the prison, and often prisoners experiences prior to incarceration.

Theme: Facing Forward

This category emerged, not exclusively, but most strongly from interviews with stakeholders involved in longer duration SBIs (for example, 8 to 12-week full-time sporting academies), those augmented with additional employability or training programmes. It was important therefore to try and extract the additional benefits sport was bringing to this category, and associated sub-categories. It was explained by interviewees that sport was not merely a ‘fly-paper’ to attract participants, rather, the climate created by the sporting input facilitated an openness to considering future positive life courses, which may or may not involve continued involvement in sport. The two sub-categories were:

Reduced Transitional Anxiety

Many of the interviewees stressed that integral to their offering was a “through the gate” service, which allowed prisoners, having successfully engaged with their offering in the prison, to continue the relationship upon release. It was felt that sporting organisations are uniquely placed to offer this due to their involvement at the heart of many communities. Key to this was the establishment of a relationship inside the prison, instilling a sense of confidence in the prisoner that they would be welcome upon release. It was believed that this feeling of belonging would have a beneficial impact on psychological well-being. P15 commented:

“and then sport really creates a great network, which is why we try and signpost the boys to rugby clubs and things like that, where there's people working from dustmen to doctors, all playing in the same team, so there isn't really a, sort of, a class distinction, if that makes sense?”

Openness to Sign-posting

Prison offers a multitude of services designed to assist with rehabilitation and reduce re-offending upon release, for example, criminal justice services, training and employability services. By linking these services with SBIs, the providers were able to deal with prisoners in a more positive state of mind, or state of readiness to change, resulting in more meaningful engagement. An example was provided by P1:

“because they’re on a sports programme and they’re feeling better, they’re developing their communication skills... there’s a window of opportunity for an (external) organisation to glean information and utilise it, and if they were to come into a room and meet their client they would find a less resistant one. That’s what the National Career Service is finding, less resistance when they meet them [prisoners] because they’re in a comfortable environment really, rather than coming in to sort of violence and stresses in general, if someone knocks on a door [on a landing] and says can we have a chat, they’re going to be resistant.”

There was a clear belief that SBIs facilitated the development of life skills, which when coupled with an openness to sign-posting, could assist prisoners in building future careers. However, this hinged on very clear linkages being made between sport and positive life skills, rather than *“playing sport for sport’s sake”*, (P3), and hoping somehow that the connections would be made. For example, one stakeholder explained how he engrained four key life lessons in all his rugby sessions: (1) always move forward; (2) constant recycling [of the ball, or oneself], getting up and going again; (3) achieving 1 & 2 with the help of those around you; and, (4) having a constant focus on an end goal. There were also examples from three of the interviewees of prisoners who, upon completion of an SBI and their

subsequent release, had been employed with associated sporting organisations. One a strength and conditioning coach in a professional team, and two had become full-time mentors in different sport-based community interest charities. Larger sports governing bodies were also well placed to offer tangible career development outside of the obvious coaching opportunities. P8 explained their future intentions as their SBI evolves:

“Something that we are looking to do next year, is where we can have people in here on work placement [on ROTL or liberation]... I mean we are a small to medium sized company, we are a hundred and twenty people, but we’ve a broad range of finance, marketing, all of those things that you forget about and you just focus... it’s all on the pitch and it’s all about coaching... but there’s obviously so much more to it.”

However, caution was sounded regarding the need to manage expectations, that whilst there are examples of employment opportunities coming directly as a result of involvement in the SBIs, this would not always be possible. This was considered an important issue as overpromising and not delivering very quickly leads to a breakdown of trust and engagement with the prisoner population.

Theme: Creating a Life Rhythm

This theme emerged as a key contributor to the perceived improvement in psychological well-being of prisoners, particularly with regard to having a life purpose and associated positive functioning. This creation of a life rhythm and a daily structure would then ideally continue upon release, through contacts with the

community based sports initiatives. There were two associated sub-categories which supported this theme:

Structure to Prison Life

The essence of this sub-category was that sport, whether that was in the prison gym, or through a specific SBI, often helped prisoners simply “*get through the day*” (P14), by virtue of it being a more attractive proposition within the prison. Sport represented a voluntary choice, which made them feel in control and better about themselves. Sport was something they could do several times a week, in some prisons every day, and crucially it represented an activity to look forward to. What was often described as an increase in focus and discipline by those engaged in the SBIs, encouraged and enabled prisoners to engage with a daily structure, and consequently be less engaged with activities likely to lead to problems in prison, such as involvement in fighting, drugs or consistent troublesome relations with prison staff. There was however an associated risk to psychological well-being with this sub-category, expressed by P6, a prison governor:

“Once they have experienced the benefits, they become more involved in the routine, then if there is some difficulty why they can’t go, it can affect their (psychological) balance for the worse.”

It was therefore deemed important to be flexible when considering the potential removal of privileges which are facilitating attendance on the SBIs, particularly in the early stages, when ill-discipline was more likely to arise.

Transitional Structure

P2, an ex-prisoner who now delivers SBIs explained the importance of having a daily structure and routine established on release from prison:

“The only time we engage in sport [from previous childhood experience] is in prison, but when you come out and you’re up to no good, you’ve got no time for that [sport] because you’re constantly chasing money, you’re constantly doing whatever you’re doing, so there’s not really the time to go and do that until you’ve got a good routine and your income is getting to where you want it to be, then you can take your foot off the pedal a bit.”

Those involved in the delivery of SBIs, particularly those which straddled both sides of the prison gate, felt that prisoners attending their interventions greatly enhanced their chances of embracing a positive life rhythm of developing a structure to their daily routines which enables them to flourish rather than gravitate toward risk-taking behaviours. This can be achieved by building on their increased openness to the community links and possible employability opportunities discussed previously.

4.5 Discussion

The aims of the current study were to: a) address a gap in the sport and prison research by presenting a thematic framework to aid our understanding of how SBIs can benefit psychological well-being in prisons; and b) link the framework to extant psychological theory in line with MRC guidance (Moore et al., 2015). The discussion will therefore focus on examining how the thematic framework presented in the results relate to psychological theory and previous research.

A close alignment was observed between the themes “Relating and Relationships”, “Sense of Achievement” and “In Their Hands”, and Basic Psychological Needs Theory (BPNT) (Ryan & Deci, 2001). Ryan and Deci propose that humans have three fundamental psychological needs: autonomy; competence; and relatedness, that once met, lead to increased psychological well-being. Autonomy is concerned with the experience of choice in one’s behaviour and acting as a result of personal interest. Competence refers to feelings of effectiveness in one’s environment and experiencing opportunities to express one’s capacities. Finally, relatedness refers to feeling connected with others, a reciprocal sense of caring and having a sense of belonging with other individuals and one’s community.

A clear similarity is evident between ‘Relatedness’, as a central tenant of BPNT and the theme, Relating and Relationships, with similarities also existing within remaining themes identified, e.g., Facing Forward (openness to community involvement) and Sense of Achievement (sharing achievements with others). The importance of prisoners developing new ways of relating and having opportunities to put these new skills into practice, (internally and externally), was cited by multiple stakeholders as key mechanisms within the SBIs. The development of pro-social behaviours and an associated benefit on psychological well-being is supported by previous non-prison based research, indicating that sharing a meaningful connection with others through sport may enhance mental well-being (Mack, Wilson, Gunnell, Gilchrist, Kowalski & Crocker, 2012; Gunnell, Crocker, Mack, Wilson & Zumbo, 2014). Previous prison based research with programme participants has also consistently reported improved relations, communication, trust and team-working (Dubberley et al., 2011; Meek & Lewis, 2014a; Leberman, 2007; Gallant et al.,

2015), each contributing to improved relatedness and subsequent psychological well-being.

Improvements to participants' perception of competence (i.e. feelings of effectiveness in one's environment and experiencing opportunities to express one's capacities) are core elements within BPNT and were evident across several of the themes identified, most readily in "Sense of Achievement", for example, the personal and team achievements, which were readily facilitated within the SBIs, and the associated recognition (both internally in the prison, and externally to significant others). Also, the theme "Sporting Occasions", identified by previous research as an effective means to engage prisoners, or at-risk individuals, in activities they typically dislike such as education (Lewis & Meek, 2012; Nichols, 2007; Sharpe, Schagen & Scott, 2004), is also credited in the current research with providing a range of novel sports, offering opportunities for 'quick-win' improvements in perceived competence. As a result, associated improvements were reported in both prisoners' immediate affective state, at the point of achieving a new sporting goal, but also their eudaimonic well-being, through a more lasting increase in self-efficacy, for example, having completed multiple physically demanding tasks. These reported mechanisms of achievement and recognition are in line with previous research reporting involvement in sport as a route for providing improvements in perceived competence, positive self-definition and self-presentation (Kehily, 2007; Leberman, 2007; Lubans et al, 2016; Meek & Lewis, 2014a).

In addition to new sport competences, improved social competences and opportunities to display them were also evident in the themes of "Facing Forward",

and “Relating and Relationships”. Opportunities to express one’s capacities were also more readily realised by the perceived improvement SBIs had on the participants’ Life Rhythm, with newly established daily structures enabling an improved sense of purpose and meaning, both key to psychological well-being (Ryff & Keyes, 1995).

Within BPNT, as proposed by Ryan and Deci (2001), autonomy is concerned with the experience of choice in one’s behaviour and acting as a result of personal interest, which may initially appear paradoxical within the confines of incarceration. However, Woodall, Dixey & South (2014) examined how choice, control and implicitly, empowerment, key components within the discourse for health-promoting prisons, have benefitted prisoner well-being. Despite institutional structure imposed upon prisoners, they could exert some personal choice by exercising a degree of self-determination. Furthermore, it is actually within prison, free from the potentially limiting environments hitherto experienced, where offenders need to start making choices, if they are to successfully reintegrate into communities upon release. This view aligns closely with the experiences described in the theme “In Their Hands”, and also “Facing Forward”, and represents a clear benefit to eudaimonic well-being of the prisoners involved in SBIs.

We propose that SBIs, with the diversity of choice described previously, provided prisoners with a platform for an initial self-determined choice to become involved or not, with the wide-ranging appeal of sports representing an easier choice than non-sports based interventions. Increased autonomy and empowerment were also achievable through the treatment of prisoners as stakeholders within SBIs, for

example, the purchasing of equipment in the gyms and responsibility for organising sporting activities. These autonomy supportive approaches resonate with research demonstrating the many benefits athletes report when coached within an autonomy supportive environment, such as enhanced psychological well-being, basic psychological need satisfaction, self-determined motivation, and performance (Amorose, 2007; Gillet, Vallerand, Amoura, & Baldes, 2010; Mageau & Vallerand, 2003). The perceived benefit of instilling a sense of autonomy and empowerment has also been reported previously within prison SBIs. Leberman (2007), reported participants becoming more aware of having choices in moving forward with their lives, and Meek and Lewis (2014a), reported increased participant motivation to improve their diet by making healthier choices following their involvement in SBIs.

In addition to BPNT, the emergent themes closely align with Social Identity Theory, (Tajfel, 1972), which focuses on people's internalised sense of their membership of a particular group, and their subsequent sense of self becoming defined in terms of that membership. An individual's psychology often depends on the state of the group that they believe defines them (in-groups), with positive psychological well-being associated with groups which provide stability, meaning, purpose and direction (Haslam, Jetten, Postmes & Haslam, 2009). The themes presented, such as "Facing Forward", "Creating a Life Rhythm" and "Relating and Relationships", all provide new opportunities for meeting these needs as participants begin to define themselves as group members within the shared social identity of the SBI. Reicher & Haslam (2006), in a nine-day simulated prison environment, also found that as prisoners developed a shared sense of social identity and collectively

resisted stressors (themes present in the framework identified, for example through the use of sports mentors) their well-being increased.

Social identity theory focuses on the importance of three key structural elements, the perceived permeability of group boundaries and the perceived stability and legitimacy of an in-group in relation to other groups (Tajfel and Turner, 1979). Therefore, the more an individual perceives their group boundaries, and desirable other groups, as permeable, the more positive they will be regarding opportunities for social mobility between those groups (Haslam et al., 2009). The themes identified within the current research, in particular “Facing Forward”, would therefore suggest that SBIs enable people in prison to perceive the community support groups and sports teams, which can form part of a new social identity on release, as more permeable, therein facilitating benefits to psychological well-being.

Finally, a constituent part of social identity theory is self-categorisation theory, which extends the former, by examining more forensically the dynamic workings of the self, and its relationship to and within groups (Turner, 1985). Whether, and which, social identities become salient is seen to be an interactive product of the fit of a particular categorisation and a person’s readiness to use it (Oakes, Haslam and Turner, 1994). With this in mind, the SBIs could be viewed as offering preparatory mechanisms which assist people in prison to increasingly perceive themselves as ready to adopt new or different pro-social identities, with the potential to improve psychological well-being. This increasing readiness to adopt new and/ or different identities through SBIs, also links in part to the transtheoretical model of behaviour change (Prochaska, Redding and Evers, 2008), which sets out

five stages individuals can progress through, and relapse from, namely, pre-contemplation, contemplation, preparation, action and maintenance of new behaviours. SBIs could therefore be viewed a useful tool in aiding prisoners transition from pre-contemplation to contemplation of new pro-social identities, and potentially beyond.

Haslam et al. (2009) highlight that negative psychological consequences can occur if an individual's sense of social identity is compromised, through leaving or being rejected by those who are part of a desirable in-group. This links to the caution sounded by P6 of the detrimental effects of breaking newly established routines within prison; therefore, if SBIs are sources of new social identities and positive life rhythms, the relevant providers need to act with due responsibility in relation to providing continuity of that identity, both within the prison and ideally on release.

Regarding the centrality of sport to perceived benefits on psychological well-being it is worth noting that many of the sub-categories within identified themes are not necessarily related to, or dependant on prisoners' involvement in sport. For example, "Facing Forward", which focuses in part on engagement with (non-sporting) community based partnerships, could be achieved without sport. The case was made however that the involvement of prisoners in SBIs facilitated introductions to a number of community based partnerships in a more receptive setting, thus greatly improving subsequent prisoner engagement. Secondly, it was suggested the ability of SBIs to reinforce the cross-functionality of skills, obtained through them but applicable to employability, was a unique additionality offered by the SBIs. These views are afforded validity through the experience of young offenders

reported by Parker et al. (2014), and Meek and Lewis (2014a). Parker et al. (2014) concluded that the wide range of community networks, which the sporting academies provided for prisoners, ensured that rather than being left with false hopes and hollow promises, there was a sense of possibility and opportunity for the future, thus encouraging a “learned optimism” Maruna (2001, Pg. 147).

The current study focused on the perceived benefits that sport-based interventions can have on the prison population. However, prisons as social environments tend to reflect the cultural norms of their host societies (De Viggiani, 2012), and this is evidenced in findings from Meek and Lewis (2014b), which reported that participation in sport and physical activity among female prisoners was lower than that of male prisoners. Participation in sport and physical activity for female prisoners was also reported as lower than that of non-incarcerated females, despite perceived benefits to psychological well-being, due to extrinsic institutional barriers and intrinsic gendered barriers (Meek and Lewis, 2014b). An over-reliance on SBIs to improve psychological well-being within prisons therefore has the potential to create health inequalities as they will be disproportionately viewed as unappealing or inaccessible to female prisoners. Also, within the male prison population, participation in activities such as weight-lifting and competitive sport can encourage toxic hegemonic masculinities and contribute to hierarchical and violent inmate cultures (Norman, 2017). Although the observations within the current study and recent relevant research (Maycock & Hunt, 2017), including improved relations, teamwork and inclusivity through SBIs, offer an alternative narrative, stakeholders involved in prison-based SBIs should be mindful of, and

work to mitigate, any potential negative consequences arising out of an increased use of SBIs within prison across all populations.

The absence of prisoner's views is acknowledged as a limitation of the current study. As direct end-user stakeholders, their insights into the practical and theoretical understanding of the perceived benefits of SBIs are important considerations. However, planned prisoner consultations were not possible within the current study due to persistent operational restrictions on identified sites. However, the findings presented do give voice to the views of stakeholders not prevalent in previous research, and are in many cases validated by previous research which has focused on the views of prisoners as highlighted previously. A second limitation of the study is the potential for bias in the participant views regarding the possible benefits to be gained from SBIs, due to their involvement in the design, delivery and/or management of the interventions. In recognition of this, stakeholder views and assumptions were challenged during the interviews and where appropriate this has been reflected in the findings presented.

Conclusions

The purpose of this study was to: (1) examine how SBIs can benefit the psychological well-being of people in prison from the perspective of those who design and deliver them, with the results presented in a thematic framework; and (2) link the framework to appropriate existing psychological theories in line with guidance from the MRC, to strengthen the theoretical foundations of health behaviour change interventions. Accordingly, the results are presented as a framework incorporating six main themes. These themes represent complementary

components to maximise the effective design and delivery of prison-based SBIs. Although the six themes are presented separately, with their associated sub-categories (Table 3.3), they are in many cases co-dependant on each other. Identification of these inter-relations between themes should not lessen the validity of their heterogeneity, but rather serve to demonstrate the complex social and psychological processes inherent when attempting to realise benefits to psychological well-being.

The findings build on previous research which has highlighted the important role prison based SBIs have in facilitating, increased confidence, self-esteem, pro-social behaviours and identities (Dubberley et al., 2011; Gallant et al., 2015; Leberman, 2007; Meek & Lewis, 2014a; Parker et al., 2014). These findings have been extended by conducting an in-depth exploration of how SBIs can benefit the psychological well-being of people in prison, from the perspective of those who design, deliver and provide oversight. Themes and sub-categories, which emerged inductively from the data, often resonated with previous findings reported by prisoners, and it is proposed that these parallels afford testimony to the realisation of the perceived benefits. This is cautioned with a need to measure and evaluate the longer-term benefits of SBIs and test for the continued realisation of the supportive mechanisms established therein. Similarly, due to the heterogeneous nature of both prisons (e.g., different categories) and prisoners (e.g., gender, age, ethnicity), further research is also required to test the applicability of the framework and theoretical links identified across differing prison environments and populations.

Study 2 also extends previous research by presenting the emergent themes within the context of three psychological theories, namely Social Identity Theory (Tajfel, 1972), Self-Categorisation Theory (Turner, 1985) and Basic Psychological Needs Theory (Ryan and Deci, 2001). These three theories were identified from the themes which emerged from the primary inductive thematic analysis and their importance is twofold. Firstly, they provide a psychological insight into why the themes identified ultimately have the potential to benefit prisoner psychological well-being. Secondly, they are proposed as a starting point for theory-based interventions using psychological theory to guide, and critically evaluate, their design and delivery, in line with MRC guidance, ultimately benefitting the end user (i.e., prisoners). It is not suggested that the theoretical links identified are exclusively applicable to prison based SBIs, but that the current findings highlight and strengthen their validity within the prison environment. With the former point in mind, it is recommended that the framework suggested could be tested to shape interventions outside of the prison setting, as the absence of clear and coherent theoretical foundations have been cited as issues within the delivery of SBIs more broadly for at-risk youth, Hartmann (2001) and Baldwin (2000).

In light of the reported low levels of psychological well-being within prisons, Study 2 highlights a potential role for SBIs in government policy to target the high prevalence of complex and diverse mental health needs (Fazel, Hayes, Bartellas, Clerici, & Trestman, 2016). The proposed framework also provides practitioners with a research informed tool to better facilitate the purposeful design and implementation of SBIs to benefit the psychological well-being of people in prison and progress beyond using sport in the hope of positive collateral damage. Finally,

future longitudinal intervention-based research, incorporating established quantitative and qualitative outcome measures, is required to test the perceived benefits, underlying mechanisms and psychological theories.

5. The Perceived Benefits of Everybody Active 2020: A Sport Based Intervention at Hydebank Wood Secure College

5.1 Abstract

Purpose: The primary aim of Study 3 was to determine the perceived benefits of a six week sport-based intervention, ‘Everybody Active 2020’ (EBA2020), on the psychological well-being of participants within a prison. A secondary aim was to test the effect of the intervention on basic psychological needs of autonomy, competence and relatedness within prison, and perceived autonomy support within the coaching environment. The final aim was to consider the feasibility of delivering EBA2020 within a prison

Methods: A mixed methods design was adopted, with 14 prisoners aged 18-24, completing questionnaires and semi-structured interviews at four time-points throughout the study: baseline; mid-point; post-intervention and at two-month follow-up. Interviews were also conducted with the head of physical education (PE) within the prison and the external rugby coach. Interviews were subjected to inductive thematic content analysis and mean scores for all questionnaires calculated for each time-point.

Results: Six themes emerged: 1) Sports Orientated; 2) Mental Well-being; 3) Sense of Achievement; 4) Relationships; 5) Frustrations; and 6) Lack of Longer Term Impact. Quantitative analysis revealed no substantial impact on psychological well-being, or the satisfaction of needs related to autonomy, competence or relatedness. However, results did support the creation of an autonomy supportive environment within the coaching sessions.

Conclusions: Collectively, the results indicated a short-term positive effect on psychological well-being and the important role of the coach through the successful creation of an autonomy supportive coaching environment. However, positive psychological well-being impacts reported during and immediately after the coaching sessions in the interviews did not translate into quantitative impacts on well-being. No long term impacts on well-being were observed at follow-up. The

prison environment had a negative impact on the feasibility and practical delivery of the intervention. Barriers to consistent prisoner attendance included lockdowns and persistent timetable clashes. Prison management and external providers need to work collaboratively during the design and implementation of future sport-based interventions to maximise the potential for consistent prisoner engagement and access, and potential positive impacts on psychological well-being.

5.2 Introduction

The term psychological well-being relates to a person's psychological functioning, life-satisfaction and ability to develop and maintain mutually benefiting relationships (Stewart-Brown & Janmohamed, 2008). It comprises both the hedonic perspective, that is, the subjective experience of happiness and life satisfaction, alongside the eudaimonic perspective, focusing on psychological functioning, good relationships and self-realisation. Recent research and reports from across multiple prison jurisdictions have reported that the prison population suffers from poor psychological well-being (Durcan, 2016; Travis, Western, and Redburn, 2014; Wildemann & Wang, 2017). The provision of a broad range services to meet the psychological well-being needs of prisoners is therefore critical. In Chapters 2 and 4 of this thesis, it was established that SBIs within prison represent one of the services available to meet these needs. The results of a systematic review examining 14 SBIs within prisons demonstrated a potential positive link with improving psychological well-being and / or reducing measures of ill-being (Woods, Breslin & Hassan, 2017).

The SBIs reviewed could be split across two broad categories, those which incorporated sport as part of a multi component intervention and those offering more traditional sport and exercise interventions, e.g., weight-lifting (Battaglia et al., 2014), or aerobic exercise classes (Libbus, Genovese & Poole, 1994). Examples of the former multi-component SBIs ranged from incorporating complementary goal-setting and motivation sessions (Amtmann & Kukay, 2016) to employability skills (Williams, Collingwood, Coles & Schmeer, 2015) and coaching qualifications (Parker et al., 2014). Results from both approaches demonstrated a range of positive impacts on psychological well-being or related concepts.

From the 14 studies reviewed, consisting of 9 quantitative and 5 qualitative, 12 reported some form of positive impact on constructs related to psychological well-being. With regard to quantitative results, three studies reported significant reductions on participant scores on the Beck Depression Inventory (BDI) (Hilyer et al,1982; Libbus, Genovese & Poole, 1994; Harner, Hanlon & Garfinkel, 2010), and two reported significant decreases on the Perceived Stress Scale (Bilderbeck et al., 2013; Harner et al, 2010). Hilyer et al. (1982) also reported a significant increase in participant scores in the Self-Esteem inventory and Bilderbeck et al, 2013 reported significant increases in positive affect as measured by the Positive and Negative Affect Scale. Only two quantitative studies, both incorporating measures of self-esteem, reported no significant impact of the SBIs on psychological well-being (Munson, 1988 and Williams et al, 2016). Results from the five qualitative studies reported improvements in self-concept and sense of well-being (Amtman & Kukay, 2016), improved self-confidence and self-esteem (Leberman, 2007, Parker et al., 2014) reductions in stress and anxiety (Gallant, Sherry & Nicholson, 2014) and the development of positive attitudes and outlook toward the future (Meek & Lewis, 2014a).

Despite the positive findings highlighted above, it was evident from the review that methodological short-comings existed. Therefore caution is advised in making a conclusive affirmation of the positive impact SBIs could have on the psychological well-being of people in prison. Across the nine quantitative studies reviewed in Study 1, there were 12 distinct psychometric measures, of which eight were deficit measures of psychological well-being (e.g., The Perceived Stress Scale [Cohen, Kamarck, & Mermelstein, 1983]; The State-Trait Anxiety Inventory

[Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983]). This pattern is also evident in the wider sport-based youth development literature. Jones et al. (2017) in an integrative review of sport-based youth development, noted that out of 33 articles exploring impact, measures of negative behaviour (risk-taking, depression) were more prevalent than positive behaviours (pro-social behaviours or academic achievement). More research is therefore required to incorporate and interpret specific psychometric measurements of positive psychological well-being.

Alongside a notable focus on deficit measures observed within the prison-based studies, there was also a clear omission of medium to long-term follow-up identified, with only two from 14 studies, both qualitative, including this in their study design (Leberman, 2007; Meek & Lewis, 2014a). The associated problem with the absence of medium to long-term intervention follow-up is twofold for our understanding of the impact on psychological well-being. Primarily, as psychological well-being relates to not only the development, but also the maintenance of, human happiness, satisfaction and flourishing (eudaimonic well-being), then intervention follow-up is required to capture a more complete picture of the impact SBIs may, or may not, have on people in prison. A second reason for including follow-up within prison-based study designs was illustrated by Leberman (2007), who provided the only insight into the potential negative impact of SBIs on prisoners; results revealed participant frustration due to a lack of similar activities available within the prison in the weeks following conclusion of the intervention. A greater understanding of potential negative impacts is therefore required. Accordingly, study 3 will provide a follow-up assessment of the perceived benefits of SBIs on psychological well-being.

Woods et al. (2017) also highlighted the consistent absence of health behaviour change theories across the SBIs within prison. This reflected a call for the greater understanding of ‘how and why’ SBIs achieved their outcomes within prison contexts, following a two-year evaluation of sporting academies within an English prison (Meek and Lewis, 2014a). This finding mirrors a criticism of the broader youth sport development literature, as Jones et al. (2017, pg. 163) comment “while there is a wealth of knowledge on the youth development outcomes sport can influence, there is much less on how or why this development occurs”. In response to this gap in knowledge, and guidance provided by the Medical Research Council on the inclusion of theory in health behaviour change interventions (Moore et al., 2015), Study 2 presented a thematic framework linked to health behaviour change theories, for the use of SBIs within prisons to positively impact prisoner psychological well-being. Three psychological theories were identified within the framework: Basic Psychological Needs Theory (Ryan & Deci, 2001), Social Identity Theory (Tajfel, 1972) and Self-Categorisation Theory (Turner, 1985). The current study aims to examine the validity of Basic Psychological Needs Theory (Ryan & Deci, 2001) and whether it can account for the impact, if any, of SBIs within prison on psychological well-being.

The framework identified in Study 2 incorporated six main themes, each with sub-themes. Within these, the importance of contextual factors, both sporting (e.g., the sporting occasion) and non-sporting (e.g., the relationship with the coach) were influential contributors to positive impacts on the psychological well-being of people in prison. Contextual assets such as coaches and peers, both familial and non-familial, have been identified as critical in previous prison based SBIs (Parker et al,

2014) as well as non-prison based youth sport development (Atkins, Johnson, Force & Petrie, 2015). Within the sporting context, the creation of an autonomous supportive environment is also directly impacted by the coach, and this can lead to enhanced psychological well-being (Ambrose, 2007; Bean & Forneris, 2016). Research is therefore required to assess the perceived benefits of the coach on psychological well-being specifically within the prison environment, and the facilitation of an autonomy supportive environment.

The aims of the current study are therefore to determine the perceived benefits of a prison based SBI on the psychological well-being of prisoners. In response to previous limitations identified, this study will include a specific measure of psychological well-being, incorporating a longitudinal design with a follow-up at two months to assess longer-term impact. The second aim was to determine the feasibility of participant recruitment and retention. The final aim was to test the validity of part of the proposed thematic framework, namely the perceived benefits of the SBI on basic psychological needs satisfaction and the potential for the creation of an autonomy supportive environment, within the heavily controlled prison environment (Woodall, Dixey & South, 2014). The study was conducted within Hydebank Prison, recently rebranded a Secure College.

5.3 Method

A convergent parallel mixed methods design was adopted, involving the concurrent implementation of a qualitative and quantitative data collection phase (Creswell & Plano Clark, 2011). This approach was chosen as it offers a more

compressive account of the key questions posed, and the weaknesses of either approach can be offset by drawing on the strengths of the other (Bryman, 2016).

Participants

Prisoners

A total of fourteen male participants from a sample frame of eighteen, aged between 18-24 years old, participated in the study, however this number fluctuated across the four study time points, as can be seen in Table 4.1 below. For a more detailed outline of the sample and recruitment process, please see Chapter 3.

I.D.	TP1 (1 Week Prior)	TP2 (after 4 weeks)	TP3 (after final week 6)	TP4 (2 month follow-up*)	Total Data Collection Inputs
P1	✓	✓		✓	3
P2	✓	✓	✓		3
P3	✓	✓			2
P4	✓	✓	✓	✓	4
P5	✓	✓			2
P6	✓	✓			2
P7	✓	✓			2
P8	✓				1
P9	✓				1
P10	✓				1
P11		✓	✓	✓	3
P12			✓	✓	2
P13			✓		1
P14			✓	✓	2
Totals	10	8	6	5	29

Table 5.1: Number of participants and data collection time points.

**Based on the relatively short duration and frequency of EBA202 – 1hr once a week for 6 weeks, two months was considered an appropriate follow-up timeframe to test for the continued presence of any perceived benefits.*

Non-Prisoner Participants

The EBA2020 rugby coach and a senior prison physical education instructor (PEI) volunteered to participate in the research study. The EBA2020 rugby coach had also participated in Study 2.

Quantitative Phase

Questionnaires

Each participant was invited to complete three questionnaires detailed below (please see Chapter 3 for more information on each questionnaire). In recognition of the potential for literacy problems within the population, the questionnaires were proof-read by an experienced prison education officer and suggested minor amendments made. Questionnaires were also completed in a 1-2-1 setting with the lead researcher to allow for assistance if required.

The Short Warwick Edinburgh Mental Well-being Scale (SWEMWBS)

The original Warwick-Edinburgh Mental Well-being Scale (WEMWBS) consists of 14 items developed for assessing positive psychological well-being.

The Basic Psychological Needs Scale

The BPNS assesses the degree to which people feel satisfied with three universal psychological needs included within Self-Determination Theory (SDT), namely, autonomy, relatedness and competence.

The Sports Climate Questionnaire (Perceived Autonomy Support)

This measure assesses perceptions to which a particular environment, (i.e., coaching environment), is autonomy supportive versus controlling. motivation, healthy development, and optimal functioning.

Statistical Analysis

Descriptive results were calculated for participant results on each outcome measure, across all four time-points.

Qualitative Phase

Prisoners

Fourteen male participants, upon completion of their questionnaires, took part in semi-structured interviews across the four time points as set out in Table 4.1. The use of semi-structured interviews facilitates a balance between structure and flexibility, to consistently cover a set number of topics appropriate to the aims of the study, and offer participants sufficient space to identify and develop their personal insights (Bryman, 2016). The guide was piloted through the prison's education services to ensure understanding of the areas to be covered. Interview topics covered within the guide included previous experience of sports, motivation for participation, expectations and benefits of the rugby programme, views on the programme delivery and challenges experienced. Interviews with the prisoners lasted between 15 – 30 minutes.

EBA2020 Coach and Physical Education Instructor (PEI)

Interviews with the coach and PEI were conducted using a semi-structured approach as outlined above. Interview topics covered with the coach included the purpose EBA2020, coaching style, anticipated benefits, perceived impact on participants and challenges. The PEI interview guide covered similar topics, however framed from an internal prison perspective in comparison to the coach who was essentially a visiting coach for the one-hour rugby sessions each week, over a six week period. Interviews with the coach and PEI lasted approximately 45 minutes.

Everybody Active 2020

‘Everybody Active 2020’ (EBA2020) is a physical activity participation initiative delivered throughout Northern Ireland by Sport Northern Ireland (Sport NI) in partnership with local councils. The main objective of the initiative was to encourage individuals to be more active, more often, by offering a wide range of activities. Under this remit, the local council EBA2020 delivery team worked in partnership with Hydebank, as it fell within their council boundary, to facilitate a six-week rugby coaching programme. The coach had extensive experience of coaching rugby across all age groups and levels, and the programme was specifically designed to provide an induction into contact rugby, with an aim of coaching participants to a sufficient standard whereby they are match ready and can play the sport either in Hydebank or in the community upon release.

Alongside the skills improvement aims, additional aims of the programme were cited as improving teamwork, improving self-confidence and self-esteem and fostering a positive attitude toward, and outlook for, the future. Although there was no theories of change incorporated into the design of the programme, the coach felt these additional aims would be achieved informally throughout the progression of the programme as he gained participants’ trust.

Ethical Approval

Ethical approval was granted from the Office for Research Ethics Committees, Northern Ireland (ORECNI; Ref 16/NI/0047), the National Health Service, Research and Development (NHS R&D) committee and the Northern

Ireland Prison Service (NIPS). The lead researcher met with the coach and PEI in person to discuss the aims and objectives of the research and provided each with a copy of the Participant Information Sheet and Consent Form. Participants within Hydebank were provided with the same documents during one-to-one meetings with the lead researcher in Hydebank, subsequent to their initial interest in the poster advertisements.

Across all time-points, each participant met with the lead researcher on a one-to-one basis within Hydebank to complete their questionnaires and conduct the semi-structured interview. This approach enabled the researcher to provide assistance if required to complete the questionnaires. The PEI interview was also conducted face-to-face on site in Hydebank, and the coach interviews were conducted off-site at a convenient time and place. All interviews were audio recorded and transcribed verbatim.

Data Analysis

Thematic content analysis was undertaken to search for concepts, categories and themes emerging. Braun & Clarke (2006) six-step process was adopted, see Chapter 3 for a full description.

Trustworthiness

Trustworthiness of the data, analysis and final themes were established through a number of checks conducted throughout the study to ensure accurate and rigorous findings are presented to the reader (Sparkes, 1998). The study included extensive participant quotes to elevate the validity of the findings, with the

participant I.D. numbers from Table 4.1 indicating the origin of each quote used; second, all raw-data quotes were subjected to an audit trail (a mapping from the participant's spoken word to theme creation); and finally, detailed discussions were held between the lead researcher and his supervisors to explain and challenge emergent concepts, categories and themes.

5.4 Results

Quantitative

Individual and overall mean results for each outcome measure across all four time-points are presented in turn below, with associated observations emerging from the descriptive statistics. More advanced statistical analysis of change over time against baseline scores was not possible due to inconsistent participant adherence. The quantitative results were then combined with the results from the qualitative study in the discussion section to increase understanding of the impact from EBA2020.

Short Warwick Edinburgh Mental Well Being Scale (SWEMWBS)

Participant	SWEMWBS T1	SWEMWBS T2	SWEMWBS T3	SWEMWBS T4
P1	25.03	25.03	-	25.03
P2	26.02	35.00	19.98	-
P3	22.35	24.11	-	-
P4	24.11	23.21	24.11	23.21
P5	32.55	29.31	-	-
P6	19.98	22.35	-	-
P7	20.73	23.21	-	-
P8	20.73	-	-	-
P9	23.21	-	-	-
P10	26.02	-	-	-
P11		19.98	24.11	25.03
P12	-		21.54	18.59
P13	-	-	25.03	-
P14	-	-	21.54	19.98
Mean (SD)	24.07 (3.7)	25.28 (4.74)	22.72 (1.97)	22.37 (2.95)

Table 5.2: Participants' SWEMWBS Scores (Min 7; Max 35)

SWEMWBS scores can range from a minimum of 7 to a maximum of 35, with higher scores indicating higher psychological well-being. Results from 7,196 participants who completed the general Health Survey for England in 2011, reported

the mean SWEMWBS score as 23.61 (*S.D.* = 3.90). The mean score obtained from participants within Hydebank across all time points is therefore comparable to that reported in the 2011 general population survey. This would suggest that poor psychological well-being was not as prevalent in the current sample compared with other prison populations. There was only one participant, P4, who reported a large increase then decrease in SWEMWBS scores between time points T1, to T2 (+8.98) and T2 to T3 (-15.02) inclusive. This particular result is at odds with the participant's situation, as at the time of completing the questionnaire for T2, when he achieved the only maximum psychological well-being score reported across the study, he was serving four days in a minimal contact and restricted movement block due to the discovery of contraband in his cell. The mean scores obtained across time-points would suggest no substantial impact, positive or negative, of the EBA2020 rugby programme on the psychological well-being of participants.

Basic Psychological Needs Scale (Autonomy)

Participant	BPNS T1 (Autonomy)	BPNS T2 (Autonomy)	BPNS T3 (Autonomy)	BPNS T4 (Autonomy)
P1	3.33	3.33	-	3.33
P2	3.67	4.00	4.00	-
P3	3.33	3.00	-	-
P4	3.67	3.67	3.67	3.33
P5	4.00	4.00	-	-
P6	2.67	3.00	-	-
P7	3.33	3.00	-	-
P8	3.33	-	-	-
P9	3.00	-	-	-
P10	4.00	-	-	-
P11		3.33	3.33	3.33
P12	-	-	3.67	4.00
P13	-	-	3.67	-
P14	-	-	3.67	4.00
Mean (SD)	3.43 (0.42)	3.42 (0.43)	3.67 (0.21)	3.60 (0.37)

Table 5.3: Participants' BPNS (Autonomy) Scores; (Min 1; Max 4)

The mean scores reported for the autonomy scale are consistent across time points with minimal changes, positive or negative reported. The scores suggest consistent positive self-reported perceptions of autonomy. The results would suggest no substantial impact, positive or negative, of the EBA2020 rugby programme on the perceived autonomy of the participants.

Basic Psychological Needs Scale (Competence)

The mean scores reported for the competence scale in Table 4.5 are consistent across time points with minimal changes, positive or negative, reported. However, at T3 a negative change occurred of -0.32 from T2, largely influenced by a decrease of 2 between T2 and T3 for Participant 2. Taken as a whole, the scores suggest consistent relatively positive self-reported perceptions of competence. The

results would suggest no substantial impact, positive or negative, of the EBA2020 rugby programme on the perceived competence of the participants.

Participant	BPNS T1 (Competence)	BPNS T2 (Competence)	BPNS T3 (Competence)	BPNS T4 (Competence)
P1	4.00	3.33	-	3.33
P2	3.33	4.00	2.00	-
P3	3.67	3.33	-	-
P4	3.67	3.33	3.00	3.33
P5	4.00	3.67	-	-
P6	3.00	3.67	-	-
P7	2.67	3.00	-	-
P8	3.33	-	-	-
P9	3.33	-	-	-
P10	3.67	-	-	-
P11		2.67	3.00	3.33
P12	-	-	3.00	2.67
P13	-	-	4.00	-
P14	-	-	3.33	3.33
Mean (SD)	3.47 (0.42)	3.38 (0.42)	3.06 (0.65)	3.20 (0.30)

Table 5.4: Participants' BPNS (Competence) Scores; (Min 1; Max 4)

Basic Psychological Needs Scale (Relatedness)

Participant	BPNS T1 (Relatedness)	BPNS T2 (Relatedness)	BPNS T3 (Relatedness)	BPNS T4 (Relatedness)
P1	3.67	3.33	-	3.33
P2	3.33	3.00	1.67	-
P3	3.67	3.67	-	-
P4	3.67	3.67	3.67	3.67
P5	3.00	3.33	-	-
P6	2.67	3.67	-	-
P7	3.00	3.00	-	-
P8	3.33	-	-	-
P9	3.00	-	-	-
P10	3.33	-	-	-
P11	-	2.33	3.00	3.33
P12	-	-	3.00	3.00
P13	-	-	4.00	-
P14	-	-	3.33	3.33
Mean (SD)	3.27 (0.33)	3.25 (0.44)	3.11 (0.81)	3.33 (0.24)

Table 5.5: Participants' BPNS (Relatedness) Scores; (Min 1; Max 4)

The mean scores reported for the relatedness scale are relatively stable across time points with minimal changes, positive or negative. P2 reported a decrease in perceptions of relatedness of 1.33 across T2 and T3, possibly reflecting the fact he was due for release one week after T3, following several years inside Hydebank. Taken as a whole, the scores suggest consistent, relatively positive, self-reported perceptions of relatedness. The results would suggest no substantial impact, positive or negative, of the EBA2020 rugby programme on the perceived relatedness of the participants.

Sports Climate Questionnaire (Autonomy Supportive Environment)

Participant	SCQ T2	SCQ T3
P1	4.33	-
P2	5.33	4.00
P3	7.00	-
P4	6.00	5.83
P5	7.00	-
P6	6.83	-
P7	6.67	-
P8	-	-
P9	-	-
P10	-	-
P11	5.33	6.67
P12	-	7.00
P13	-	6.33
P14	-	5.17
Mean (SD)	6.06 (0.99)	5.83 (1.11)

Table 5.6: Sport Climate Questionnaire (Autonomy Supportive Environment) Scores at time point 2 and 3; (Min 1; Max 7)

The results from the sports climate questionnaire, although revealing a slight decrease between T2 and T3, remained positive throughout the intervention.

Qualitative

Table 4.8 below displays six themes and supporting sub-categories which emerged from the analysis. Each are described in more detail.

Theme / Category	Sub-Category
1. "Sports Orientated"	1.1 Sports Background
	1.2 Sport in Prison
	1.3 Structured Training
2. "Mental Well Being"	2.1 Improved Mood
	2.2 Mental Escapism
	2.3 Something to Look Forward To
	2.4 Reduced Stress and Anger
3. "Sense of Achievement"	3.1 Individual Improvement
	3.2 Differing Expectations
4. "Relationships"	4.1 Positive Prisoner Relations
	4.2 Positive Coach Relationship
5. "Frustrations"	5.1 Lack of Numbers
	5.2 Programme Duration and Frequency
	5.3 Lack of Autonomy
6. "Absence of Lasting Benefits"	

Table 5.7: Emergent themes and sub-categories from interviews with participants

Theme: Sports Orientated

A theme emerged from participant interviews that prisoners who signed up to the rugby programme were already involved in sport at some level. Three separate sub-categories emerged that supported this theme.

Sports Background

All 14 participants described a sporting background, ranging from recreational involvement in sport at, to more organised involvement such as representing their county in Gaelic Athletic Games (GAA) or having football trials for a professional football team.

Sport in Prison

Due to their sporting experiences prior to prison, participants were unsurprisingly involved with sport and exercise activities within the prison. Use of the gym was the most popular activity, with participants describing a routine which involved going to the gym most days of the week, with football (offered twice a week) also proving popular. Other sporting activities discussed included yoga, cross-fit and badminton. P14 confirmed the attraction of sport within the prison, *“Oh aye, the sport’s everything for everybody in here. Everybody likes it, enjoys it, everybody goes out to sports, mostly anyway.”*, and P6 explained how the prison offered a more routine environment where he could participate regularly in sport, *“I would be interested in it outside [sport and exercise] but aye... drugs and all took over me so it did, and I’ve no routine so I don’t really.... don’t get round to doing it out there.”*

Structured Training

Participants talked with knowledge about their structured training approach and routines, demonstrating an awareness of the benefits of having a training plan and varying their activities. This is evident in the description P8 provided:

“I separate it through the week... I do a bit of weights and then do a bit of cardio and running and then on the rowing machine and then work... try and work on my stomach and upper body, sometime during the week. About three times a week do my upper body with two days a week doing my cardio.”

Theme: Mental Well-Being

This theme emerged from discussions with participants regarding the benefits of taking part in the EBA2020 rugby programme. Participants also discussed more

generally their involvement in, and benefits from, the sporting activities on offer. It was therefore important to consistently steer them back to their views on the rugby course specifically. There was also a tendency for participants to discuss a reduction of negative thoughts and feelings rather than increases in well-being. Four themes emerged.

Improved Mood

Across all interviews from TP2 onwards, participants spoke of elevated feelings of positive affect following their participation in the coaching sessions. This was captured by P3:

“It raises the moral and all you know what I mean, if you’re having an aul bad day you know, a real down in the dumps and all and stuff like that there. I go to the rugby or go to the gym, and I’m a hundred percent after it you know what I mean? You know, just gets me straight back up again, my mood completely changes you know what I mean? You just zone into the rugby and that’s it once you’re finished, you’re all smiling and you even forget what you were annoyed about, you know what I mean?”

When asked how long the positive affect would last, the longest time reported was through until the next morning when prisoners would still be sharing stories regarding their enjoyment from the training sessions.

Mental Escapism

Participants described how time in prison, either in their cell or whilst being involved in other activities where they felt less engaged, resulted in having excess

time to “over-think everything”, resulting in negative emotions such as anxiety.

Participation in the rugby programme provided a temporary positive mental space, as described by P4 and P14:

(P4) “I think its cause you know your keeping your mind occupied on something that you want to do you’re not forcing yourself through something that you don’t want to, do you know what I mean, your actually wanting to go out of your way and do it.”

(P14) “Even when we’re running around, we’re not thinking [negative thoughts]. Everybody over thinks in their room and then you’re called for the gym and rugby or whatever, and you’re running around and you’re getting into it, it just clears your head, you know. You don’t even think about it, you’re thinking about the game.”

Something to Look Forward To

EBA2020 provided participants with a new sporting activity to get excited about and look forward to, which enhanced their feelings of personal happiness on the days it was scheduled. This is captured in the following participant quotes:

“I’d be looking forward to it every Wednesday, I knew it was Wednesday and I’d be like great – rugby, so it was sweet like.” (P11)

“It gives you something to do and something to look forward to do. It’s like a goal, you know what I mean?” (P2).

Reduced Stress and Anger

The quotes below from participants P5 and P6 were representative of broader participant views that the rugby programme provided a welcomed opportunity to reduce negative feelings of stress or anger.

“More mentally like [the benefits], aye, if you’re stressed out all week and your heads melted...being in here stresses you, you know what I mean? You go up there [to rugby on the top pitch] and just everything goes, it’s good that way.” (P5)

“It gets all your anger away and just you feel more relaxed after it and clears the head. Then after you just calm down a bit. Cos you’ve released a load of tension.” (P6)

A unique element which the rugby programme offered within the prison was the physical contact element of it, which the prisoners consistently referred as one of the major attractions and sources of enjoyment, as well as a contributory factor in reducing their stress and anger. Of note was that the contact element, although an initial concern for the coach, was never taken advantage of by the prisoners. Quotes below from the coach and P4 highlight this:

“There is a bit of a respect there between each other. When they are doing things, they do it correctly and safely. It’s not just a free-for-all and a wrecking. I had some concerns at the start, as you would, bringing contact into that environment but there’s been no issues at all.” (C)

“So I would never hit anybody up high cause, god knows like, I wouldn’t go out of my way to actually hurt them like, you know what I mean like, as long as I get a good hard clean tackle like I’m happy.” (P4)

Theme: Sense of Achievement

Individual Improvement

Participants cited a personal perception that they were improving their rugby skills and identified this as a source of achievement and something to be proud of, as demonstrated by P11:

“Since four weeks ago, I know it just seems short... but I’ve seen improvements in me and the other lads. Like we were doing this thing last week and he was saying to us, ‘you shouldn’t be dropping the ball’, I didn’t drop it once when we were doing the three way pass, running up and down the pitch. So the weeks before that we were dropping it and all and messing about, not like that no more, it’s just getting on with it. Feels like I’ve achieved something.”

This sense of improvement and achievement in the participants was noted by the coach, who adopted an approach which ensured he provided praise where appropriate. When discussing some of the participants who were less skilled at the beginning of the course, he noted:

“It’s taking them longer but they are starting to achieve things. Maybe by week 1, they can’t make a tackle, then by week 4 they do make 1 or 2. I just make sure I reaffirm that with them and make sure and say that was really well done, i.e. – “you see where you came from, you see how you’ve progressed”.

Hopefully that will be building their confidence and they'll realize, "I am getting better at this." Hopefully this is making that clear to them."

It was also noted that recognition from other participants for even small achievements during the sessions, provided a source for positive impact on mental well-being. This was captured by P12:

*"I like playing it because people be talking, look at the big fella there, you can barely get him down, I just like hearing wee good things like that because it makes me, because I sit and think to myself, what the f*** am I doing with my life in jail. See wee things like that make you feel good about yourself, you don't realise how much it actually does help you. That's in here, it's weird, you have to be in jail to understand."*

Differing Expectations

As noted above in 'Sports Orientated', there were a small number of participants who had previously played sports at a high level, although not in rugby. These previous achievements in other sports appeared to temper their expectation of achieving anything meaningful from the rugby course, beyond their enjoyment of participating. This is demonstrated below in the quote from P1, which is in contrast to the subsequent comment by P10, who did view the course as an opportunity to achieve something.

"I think another thing is see with rugby, I'll never play for Ireland or Ulster or anything like that... because I know I'm not going to make it at the highest level I'll never strive to be that great at it... you have to remember where you are, we are not playing for anything, you know?" (P1)

“Yeah I’m more hands on, so doing the sports side of things, it’s something that I’ve done in the past but I’ve not done it at a serious level, so for me it’s a course where I can think right... I can finally get stuck into it and I can progress and progress and progress.” (P10)

Theme: Relationships

Positive Relations

The population within Hydebank was not large, housing 66 male inmates at the time of the Study. As a result, many participants on the course were already familiar with each other from their time served. However, participants indicated that the rugby programme facilitated new positive relations with other prisoners on the course, who for different reasons, had not previously socialised, or those new into the prison at the time of the programme, as P14 explained:

“You got along with people.. know what I mean that went up there... like some people, I wouldn't have stopped to talk to them and all, but on the way down and all, would have just got a conversation out of them, or else up there, having good craic, throwing in the tackles, sitting talking away, like that there way too. I still chat to every one of them like now, would have been people I wouldn't have been interested in chatting to.. know what I mean, like “vulnerables” and all like that there.. but now, aye, they come in [to the prison café], sit and talk away.”

Participants also commented on the fact that even when playing rugby with those they already knew, they were encouraged to co-operate in a more positive, supportive manner, which was not seen at other times in the prison:

“Aye I think it’s sweet because I think they all get on better because.. you have to co-operate when you’re doing rugby.” (P11)

“It’s like see on the landing, you end up fighting with each other, it’s going to be constantly bickering you know what I mean? Up there you hit someone a tackle, it’s like you get back up, say fair play that’s it, know what I mean?” (P5)

Positive Coach Relationship

A common theme which emerged was the positive relationship established between the coach and the participants. Participants commented that they felt he was genuinely interested in them, a knowledgeable coach, that he made the sessions fun and he treated them with respect, as can be seen in the comments of P12 and P11 below:

“He treated you like a human being, treated you like a normal person, the staff in here don't.. they treat you as you're a scumbag... he didn't, he didn't care.. just treated you normal.” (P12)

“I think he’s just he’s gained respect by the way he delivers everything, the way he talks to us he’s got his respect in here. Its built up each time. You can tell you can tell straight away if someone’s going to get on alright with us or if people are going to rebel against them, so I just say, just purely because he talks to everyone, he doesn’t come in looking down on anyone, he’s pretty level like.” (P1)

These factors contributed to the potential for the positive psychological well-being impacts described previously, as evidenced by P12:

“Aye he’s good to be around, a good coach and a decent fella. I like people being positive and stuff. He’s just a good guy to be around, I just like him. It’s listening to what he said too... just being around him, see someone telling me I’m good at something and I should stick at something, that’s the sort of people who should be around.”

These participant views are closely aligned with how the coach described his approach to facilitating the sessions, which was centred around treating them as equal, understanding what they wanted to get out of the sessions and making them fun, alongside learning the skills. The coach commented:

“The way I’m approaching it, I’m still the coach, but I have to try and gain a level of friendship, if that’s the right word, or a relationship, where they know I’m not coming in as somebody above them. I just don’t know if they respect... you know someone... thinking they are above them and, not like really looking down on them, but treating them like schoolchildren. I think come in and try and just talk to them. Get to know what they like. Do they enjoy the rugby and what bits do they like... The channel of communication has opened up with them. I’m able to communicate to them how well they’re doing and they are able to communicate back to me, maybe they’re struggling with something and I can help them improve it.”

The approach taken would therefore align with an autonomy-supportive approach, the importance of which was highlighted by the senior PEI who commented:

You need to know when to interact with people [in the prison] and when to leave them alone, because by and large, they spend their day with people telling them what to do.”

Theme: Frustrations

Lack of Numbers

The low numbers attending the course, alongside a lack of consistency among those who did attend, emerged as collective sources of frustration for both the participants and the coach, although the coach explained he never disclosed this to the participants or allowed it to impact his interactions with them. Prior to the course starting, there were over 20 names on the self-nominated attendee list, yet in the first week only 14 attended, which was the highest number over the course of the six weeks, with one week only 4 prisoners attending. Reasons for non-attendance included prisoners receiving visits, court appearances, ‘lockdowns’ - when prisoners in certain blocks could not be allowed out of cells due to staff shortages, and injuries sustained (2 players were injured in the first three weeks, which also discouraged some others from attending). The low numbers impacted what the coach was able to achieve overall:

“The numbers. I really struggle with the whole number thing, sometimes, of how many come out. That's down to issues we can't control. That's down to the staffing, guys on lockdown, as you seen. My end goal was to maybe bring a team in to play them, I've mentioned before. For that to happen and safely, I

would need at least 15 out of them, or 12 at least, week in, week out, learning all the skills and how to play the game safely and well. If they just showed up on match day, then bring guys into play, it wouldn't work.”

As a result, the quote from P3 below represents the frustration felt by those who did attend and highlights their disappointment at not being able to build up to a match.

“People just putting their name down for something, then not going because... they don't know what they're at... but ruins it for everybody else, they'll go to everything else, go out to football, hurling and GAA, but when comes to rugby nobody wants to go, just frustrating, know what I mean? Like I'll go out and play gaelic and all, and that's not a sport I play, but I'll go and try something new to make the numbers up for rest of boys, be a team player for the rest of the lads in the jail, know what I mean. That's twice now we've meant to be getting a team in and we haven't been able to because we can't keep steady numbers, even to have a game of 7s, or a game of 10s, need to have a constant 10 or a constant 12 there to play”.

Course Duration and Frequency

Alongside the reasons cited above for the low numbers attending the course, those who did attend felt the short duration of each session (1 hour), overall number of sessions (6 weeks), and the frequency (perceived to be once a year) of the course, acted as barriers to attracting more prisoners to facilitate building toward a match. As P4 explained – *“It's not on long enough at all, like its only six weeks and six weeks are a bit of craic you know what I mean? He's looking [the coach], to get a team,*

you're just not going to get a team." Course duration was also seen a reason for a lack of any long term impacts on participants. As P1 commented:

I suppose it's... it's... probably, you go through a programme for like 6 weeks, then that's it, it's over... so in that period you just want to play games and stuff rather than learn more, cause only doing it for six weeks, and then that's it for god knows how long, you know."

There was also evidence of disappointment from the participants at the short duration of the course. This is represented in the feelings of P2, *"I said to myself like, I'd probably try and get into it more cause I wasn't really into it, and then it was alright and then I got into it and it was over"*; and P12, *"but then you get interested in it, then it gets taken away and that's the bad part of it."*

These feelings highlight the potential pitfalls of providing additional sports courses for the prisoners, which although initially positive, can lead to feelings associated with loss of autonomy.

Lack of autonomy

As discussed above, one of the recurring reasons prisoners were unable to attend certain weeks was when there was 'lockdown', that is, due to staffing logistics, a particular 'house' would be unable to release prisoners and deliver them to and from the sports block in line with safety regulations. This scenario led to frustration amongst those who were impacted by it, as demonstrated by P5 who described how he felt:

“[I was] shattered. I was gutted like. Was looking forward to it, they’ve been telling us for donkeys, aye right rugby’s starting here soon, then when it starts I didn’t get going, cheers!! I got told nothing just... whenever I said to them, am I going here, just ‘nah, there’s no staff to let you’s out’, [you] don’t know until then. You have your gym gear all sitting ready to go, like getting your hopes up for nothing. It was weird, I was just shattered, take it on the chin and deal with it.”

A different comment from P1, who regularly participated in all sports available, demonstrated feelings of acceptance of the lack of autonomy which the prison environment could foster:

“I enjoy the fact that it’s there [the rugby course], but I’ve been here long enough to know what way the system works and you don’t tend, not to get too bothered by stuff, say if like... say they came in now and said rugby’s not happening now for the rest of the year, I wouldn’t, get hung up on it, I wouldn’t even ask too many questions on why.”

Theme: Absence of Lasting Benefits

Although participants and the coach had reported impacts of positive affect when participating in the rugby programme, on conclusion of the course rugby is not available within Hydebank, and follow-up interviews revealed participant perceptions that no long term psychological well-being benefits had resulted. The following quotes from participants were indicative of their views:

“Na, [no long term impact] cause only a short period, so it's not really going to affect me in anyway you know what I mean, only way that going to happen

is certain people who haven't played it are going to go to learn it, know what I mean, and most people who go don't really stick to it.”(P1)

“Na, not really [any long term benefits] but just when it's on I loved it so I did... I'd love for the jail to get it back up and running know what I mean.”(P11)

Similarly, the coach indicated his belief that the course had not produced any significant lasting benefits:

“I would hope so [for longer term impacts on mental well-being], but I don't I think there was to be honest, I would hope it would have, but I think this programme would've had to possibly be a bit longer or a wee bit more... a bit more to it, so if they had of actually got the opportunity to work as a team and see themselves play as part of a rugby team, I think that would've... that memory would've lasted longer with them rather than just coaching, but when I say that, maybe I'm being too negative?”

The coach did however highlight some of the positive personal impacts he felt had been achieved:

“I think of a couple of individuals, for example [participant name], like he had a lot of anxiety issues and panic attacks and stuff, and I could see his self-esteem [increase] even to the point where he wanted to think about actually joining a club again, I think if using that one example, I think his confidence

and self-esteem was definitely built up in those five sessions or so he came through.”

Three of the participants who had not previously played rugby did state their intentions to explore options for joining rugby clubs when released from prison, with one having already looked in his local area while on release on temporary license (ROTL). Whilst these intentions could not be followed up in the current study, the potential significance of becoming involved with a local club, which could provide purpose and routine, was highlighted by P14 who stated:

“I’d be looking to do something like that [play rugby] when out, or boxing or something, just to keep myself occupied, cause if I don’t keep myself occupied I end up on the drugs again and running about, stealing out of the town and.. pointless, you know what I mean, that’s the life I want no more.”

5.5 Discussion

The purpose of this study was to determine the perceived benefits of the EBA2020 rugby coaching intervention on the psychological well-being of prisoners at Hydebank Wood Secure College. The mixed methods research design was shaped in response to previous research gaps, specifically a lack of positive psychological well-being measures, limited follow-up with prisoners to assess longer term impact and the omission of health behaviour change theories (Woods et al., 2017). In response to the importance of contextual factors within SBIs as cited by Jones et al. (2017), the current research also aimed to better understand the influence of the coach and prison environment as mediators or moderators of impact on psychological well-being.

Considering the impact on psychological well-being, it is noteworthy that participant mean SWEMWBS scores across all time-points, including baseline, remained stable and were consistently comparative to results from the 2011 Health Survey for England. This would indicate a more positive state of psychological well-being within the current sample than has been reported across the prison population more generally (United Kingdom - Durcan, 2016; United States - Travis, Western, and Redburn, 2014; Australia - Australian Institute of Health and Welfare, 2015). Although speculative, an important consideration which may have influenced this finding is the fact that the intervention site, Hydebank Wood Secure College, was officially rebranded as a “college” rather than a young offender centre (YOC) with prisoners referred to as “students” and a considerable emphasis placed on education and the provision of purposeful learning activities during the day. Previous high levels of participant involvement in sport and exercise activities could also have impacted their scores, with gym activities consistently cited as a positive impact on psychological well-being. The more positive SWEMWBS scores observed in the current study highlight the dangers of assuming a ‘deficit model’ (Coalter, 2013), whereby poor psychological well-being, and/ or related constructs such as low self-esteem, are assumed within at-risk populations.

Qualitative results showed a short-term positive impact on psychological well-being, particularly the hedonic perspective of subjective happiness and satisfaction, as a result of the intervention. Short-term positive affect was demonstrated through improved mood, mental escapism and having an event to look forward to. These findings support the findings from previous research within the

prison population reporting similar outcomes (Amtmann & Kukay, 2016; Bilderbeck et al., 2013; Gallant et al., 2015; Hilyer et al., 1982; Parker et al., 2014). Participants also reported a short-term reduction in related deficit measures of psychological well-being, specifically, reduced feelings of anger and stress. These results also add to the existing body of research which has reported similar improvements in feelings of stress, anxiety and/or anger (Battaglia et al., 2014; Bilderbeck et al., 2013; Harner et al., 2010; Martin et al., 2013; Nelson et al., 2006; Gallant et al., 2015; Meek & Lewis, 2014a; Parker et al., 2014).

In contrast to the short-term positive benefits reported, a theme emerged which centred on a lack of medium to long-term benefit to psychological well-being, in contrast to findings from two previous prison-based studies incorporating intervention follow-up. These reported medium to long-term well-being benefits at two months (Leberman, 2007) and up to two years (Meek & Lewis, 2014a). However, intervention contact time was considerably less in the current study (one hour a week, over six weeks) in comparison to the Leberman study (20 day residential outdoor activity course) and the Meek and Lewis study (12 to 15 weeks, 5 days a week intensive course). Reflecting these comparative differences in intervention contact time, prisoners and the coach both cited course duration and frequency as reasons for the lack of lasting benefit, alongside inconsistent programme attendance. These findings, relating to programme efficacy and feasibility which will be discussed further, enhance the current research by highlighting the importance of facilitating sufficient programme duration and frequency within the prisons, if there is to be potential for a lasting benefit to psychological well-being.

The current study aimed to examine if Basic Psychological Needs Theory (Ryan & Deci, 2001), presented in the thematic framework outlined in Study 2, mediated the relationship between the sport based intervention and any resultant impacts on psychological well-being. Quantitative results suggest that each of the three fundamental psychological needs of autonomy, competence and relatedness were consistently perceived as being met within the current sample across each of the four time-points, with no large increase or decrease observed throughout participant involvement in the EBA2020 rugby course.

Emergent themes from the qualitative results however showed increased feelings of relatedness within the participants, during the course and at follow-up, particularly with new or vulnerable prisoners who participated, alongside improved feelings of competence, through improvements in individual rugby skills. Increased feelings of relatedness can be directly linked to improved psychological well-being (Reis, Sheldon, Gable, Roscoe & Ryan 2000), both the hedonic perspective through an immediate positive affect, and the eudaimonic perspective, which partly focuses on developing and maintaining positive relationships. This strengthens previous research which has reported improved prisoner relationships, pro-social behaviours and sense of achievement, following involvement in SBIs (Leberman, 2007; Meek & Lewis, 2014a; Parker, Meek & Lewis 2014), as well as sport providing a coping mechanism for new prisoners during their transition into prison life (Gallant et al., 2015). Results demonstrated that perceived improvements in competence were moderated by outcome expectancy of participants, with those previously playing sport at a high level reporting enjoyment, rather than a sense of achievement, as

participation aims. Results also revealed the short duration of EBA2020 and a lack of rugby availability on its' conclusion, prevented any longer-term maintenance of increased feelings of competence. This translated to a short-term impact on hedonic psychological well-being, namely subjective happiness and/ or satisfaction, rather than long-term increased psychological flourishing.

In contrast to a perceived increase in the needs satisfaction of relatedness and competence, albeit the latter short-term, qualitative results revealed no perception of increased feelings of autonomy, with the exception of three prisoners indicating they might choose to continue playing on release. However, the programme offered no formal “through the gate” assistance in facilitating this, in contrast to those in other studies (Meek & Lewis, 2014a; Parker et al., 2014; Williams et al., 2015). Results also highlighted the potential for the thwarting of autonomy needs satisfaction due to participants being denied access to the course, without notice, on occasions of security or staffing issues. These qualitative results contrast with the quantitative results obtained in the Sport Climate Questionnaire which indicated the positive facilitation of an autonomy supportive environment during the course. This would suggest that although participants experienced increased feelings of acting out of choice and having input into decisions during the training sessions, this did not translate outside of the coaching environment. Two points emerge from this observation, it cannot be assumed that psychological well-being benefits will transfer beyond the sporting environment within prisons, mirroring the findings of non-prison based research into the transferability of human-orientated functions in youth-sport development (Jones et al., 2017; Edwards, 2015), which highlight the importance of intentional design and well managed practices. Leading on from this,

the lack of transfer evident in the current study is potentially linked to the lack of both health behaviour change theory during design, and wrap-around non-sporting services and transitional support, observed on other SBIs based on a “sport-plus” model (Meek & Lewis, 2014a; Parker, Meek & Lewis, 2014; Williams et al., 2015).

As well as programme design, the role of contextual factors or assets, such as the influence of the coach, parents, peers, as well as the environment, are highly influential in realising the potential for positive developmental impact and psychological well-being through sport (Ambrose, 2007; Atkins, Johnson, Force & Petrie, 2015; Gillet, Vallerand, Amoura & Baldes, 2010; Lerner, Dowling & Anderson, 2003). The results from the current study strengthen these findings and demonstrate both the positive and negative influence contextual influences can have. The relationship fostered between the coach and participants, which centred around values of positive reinforcement, respect and equality, emerged as a key influence on the positive affect reported by participants, satisfaction of their relatedness and competence needs, and the facilitation of an autonomy supportive environment during the coaching sessions. However, the impacts of the prison environment on programme efficacy and feasibility were consistent sources of frustration for participants and the coach, with programme duration, frequency, and attendance all acting as limiters to the potential for longer-term positive impact on psychological well-being.

Negative impacts of commitment, regular attendance, and scheduling, on programme feasibility, of which the latter two are under greater control of the prison, have been reported in previous studies (Harner et al., 2010; Gallant et al., 2015). The

current study expands on this, by highlighting the negative impact these factors can also have on programme efficacy, as an unachieved programme goal was to coach a team to sufficient standard to compete against a visiting team, which the coach believed would have facilitated increased impact on psychological well-being. Therefore, if similar team orientated SBIs within prison, dependent on high attendance numbers, are to realise greater potential for impact on psychological well-being, they must actively seek to maximise prisoner engagement in areas under their control. Flexibility in timetabling being one, alongside continued facilitation of greater access to the new sporting activities introduced, albeit dependent on sport specific expertise available and funding implications.

Programme feasibility and efficacy also had a direct impact on the fidelity of the research model, with the impact of fluctuating attendance numbers and lack of consistent participants from baseline to follow-up negatively impacting the scope for longitudinal quantitative analysis. As one participant [P1] who declined to be involved at TP3 commented, “*there’s no point, nothing’s changed*”. Although such a comment in itself represents a telling qualitative insight, the temporary withdrawal (he participated at T4), alongside the broader changeable make-up of programme participants (and therefore the research sample), was of detriment to the planned quantitative analysis. As a result, there was only limited realisation of one of the research aims, to provide a robust longitudinal measure of impact on psychological well-being rather than ill-being, with the latter over-represented in sport-based intervention studies, both in prisons (Woods, et al., 2017) and non-prison youth development studies (Jones et al., 2017). This therefore remains a requirement for future research in the area.

It is important to acknowledge the limitations of the study. The number of participants at each data collection time-point fluctuated. Firstly, participant numbers steadily decreased from ten at time-point 1, to five at time-point 4, and the constituent participants within each time-point also varied, as new participants requested to be part of the research and existing participants withdrew. It was felt that denying inclusion requests from participants not involved at time-point 1 could have potential negative impacts on them, but also, that their personal views on the perceived benefits of the intervention were worthy of inclusion and analysis, despite no baseline data being provided. As a result, the quantitative data, rather than facilitating a statistical longitudinal analysis of impact through change across time-points with a consistent sample, provided a useful insight into the mean scores of the measures used within each time-point. These results, combined with the rich qualitative data obtained, have therefore been used to inform the discussion and conclusions.

Conclusions

Several findings emerged from the current study related to our understanding of psychological well-being within the prison population and the use of SBIs to impact upon it. Firstly, both measures of psychological well-being and the satisfaction of basic psychological needs, were more positive than anticipated prior to, and throughout, the intervention. It is important to highlight the small sample size involved, although this represented over 10% of the entire Hydebank male population and is a site-specific positive finding regarding their psychological well-being.

Qualitative results indicated that EBA2020 had a positive impact on short-term hedonic psychological well-being, through increased positive affect and reduced stress and anger. However, quantitative results did not demonstrate a similar impact on psychological well-being, and overall results did not evidence substantial longer-term benefits. The exception being new relationships established during the programme remaining at two months follow-up. Short-term positive impacts on the basic psychological needs of relatedness and competence during participation were also reported in participant interviews, suggesting a link between these and observed improvements in well-being. However, direction of causality could not be confirmed in the current study. The perceived benefit of the coach-participant relationship, and his role in creating an autonomy supportive environment as measured by the novel inclusion of the Sport Climate Questionnaire, was also a critical contextual factor in facilitating short-term psychological well-being.

Quantitative results did not reveal any substantial increase (or decrease) in participant satisfaction of basic psychological needs within their daily prison environment over the duration of EBA2020. This demonstrates that benefits experienced within SBIs will not automatically transfer outside of the sporting environment, and highlights the need for deliberate and explicit facilitation in order to encourage wider impact.

Programme duration, frequency and participant commitment were all cited as limitations to realising longer-term impact on psychological well-being, as well as sources of participant frustration. SBI providers and prison management therefore need to work collaboratively to ensure that similar SBIs are afforded appropriate

time and space alongside other purposeful activities to increase the potential for impact. Where appropriate time and space are not available to implement multi-week SBIs, sport may still be used as a forum through which innovative programmes can seek to have a more direct impact on psychological well-being within a shorter timeframe. This will be the focus of the final study within this programme of research.

6. The Perceived Benefits of ‘State of Mind Sport’: A Pilot Program at HMP Risley

6.1 Abstract

Purpose: The final study sought to determine the perceived benefits of a sport-based intervention designed to improve mental health awareness of male prisoners and consisted of three main aims, namely to determine: (1) if the intervention increased prisoners' knowledge of mental health and their intentions to engage with those suffering mental illness, in comparison to a control group; (2) if the intervention increased prisoners' psychological well-being and resilience; and (3) the feasibility of the intervention within the prison environment. **Methods:** A mixed methods design was adopted, with 75 male prisoners completing questionnaires at baseline and post-program, and 29 completing questionnaires at an 8-week follow-up. Two focus groups with a total of 15 prisoners were also conducted immediately post-program to test for feasibility, including format, impact and limitations.

Results: A significant difference in means scores for knowledge of mental health was observed, with the intervention group scoring higher in comparison to the control, immediately post-program. No significant long-term impacts were observed at 8-weeks. Focus group participants reported perceived increases in hope, coping efficacy and intentions to engage more openly with other prisoners regarding personal well-being. However, fear of stigmatisation and lack of trust were identified as persistent barriers to help-seeking behaviour. **Conclusions:** A sport-based mental health awareness intervention resulted in positive short-term impacts on mental health knowledge. It was perceived as appropriate and engaging to a prisoner audience, increased intentions to seek help and an improved sense of hope. Suggestions for program enhancement included support materials to take away, the inclusion of prisoner case-studies and the provision of informal safe meeting spaces within prisons to facilitate increased help-seeking.

6.2 Introduction

“Mental health is defined as a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (WHO, 2016). Research has consistently demonstrated a higher prevalence of poor mental health and well-being within the prison population when compared to those within the community (Fazel, et al., 2016; Wildeman & Wang, 2017; WHO 2014;). Prisoners with decreased levels of mental health are also at greater risk of suicide, self-harm, violence and victimisation (Fazel et al., 2016).

Chapter 1 highlighted that the majority of prisoners are subjected to adverse health determinants prior to incarceration. However, upon entering the prison environment, they are at increased risk of having any pre-existing mental health conditions exacerbated by the harsh conditions presented therein (Wildeman & Wang, 2017). Against this back drop of hostile prison environments, and warnings of the potential for prisons to become asylums of the mentally ill (WHO, 2008), a unique opportunity exists to implement targeted health promotion activities for a population displaying the greatest need and potentially limited experience of accessing similar activities prior to their incarceration (MacNamara & Mannix-McNamara, 2014). Although traditionally the primary purpose of prisons centred around separation and confinement from society, punishment for crime, correction and rehabilitation to the community (Watson, Stimpson & Hostick, 2004), there have been repeated calls for prisons to be increasingly concerned with the health and well-being of those within their care (Santora, Espnes & Lillefjell, 2014; WHO, 2008; WHO, 1999).

Over two decades ago, the WHO established the Health in Prisons Project (HIPP), advocating the promotion of the whole-prison approach in which the combination of the health of inmates and staff, alongside the provision of work and a secure environment, were viewed as critical to the successful implementation of health promotion and reforming interventions (Gatherer, Moller & Hayton, 2005; WHO, 1995). However, over a decade later in 2007, the Trenčín statement on prisons and mental health (WHO, 2007) continued to warn of the detriments prison presented to the protection or maintenance of the mental health to those admitted and highlighted that “promoting mental health and well-being should be central to a prison’s health care policy” (WHO, 2007, pg. 6). Little has changed to date, and in a recent review entitled “A critical examination of the health promoting prison two decades on”, Woodall (2016) surmised that progress remains slow in achieving this goal and points to a weakening of commitment, both of individual nations and the WHO, and a “worrying negative trajectory” of support (pg. 619). Woodall’s critique also highlighted that in comparison to other health promoting settings, such as schools, there is a lack of prison based evaluative studies which successfully demonstrate that the principle of a health promoting prison works or indeed pays dividends.

A significant challenge facing the prisons, as they try to fulfill their role as part health and well-being promoter, is the finding that “emotional, psychological and social survival” within prison often requires men to adopt and project hegemonic prison masculinities (De Viggiani, 2012, pg.271). Conforming to such prison masculinities involves masking emotional vulnerabilities (Ricciardelli, Maier &

Hannah-Moffat, 2015), and avoiding mental health related help-seeking behaviour for fear of external consequences and internal costs (Howerton et al., 2007). Finding a workable balance between these two seemingly incompatible aims becomes even more important when one considers that good health and well-being are recognized as the key criteria to successful prisoner rehabilitation and reintegration into community (Hayton, 2007).

Despite the promotion of a salutogenic model of mental health within prisons being a contemporary theme (MacNamara & Mannix-McNamara, 2014; Santora et al., 2014), there is a paucity of prison based research evaluating mental health awareness programs (Woodall, 2016), encouraging prisoner empowerment and capacity building. Prison health, and by association studies published, have historically focused on reactive interventions to benefit those already suffering poor psychological well-being or acute pathologies, rather than health promotion (De Viggiani, 2012). However, a recent qualitative study by Keogh et al. (2017), examining the impacts of a Mental Health Wellness workshop with an Irish prison represents an exception to this. The study reported on a prison based program designed to promote learning strategies and mental health preventative measures, encouraging participants to monitor and evaluate their own mental wellness and seek appropriate support (Doyle et al., 2017). Participants reported positive outcomes in relation to responding to stress and adopting effective coping mechanisms, as well as feeling equipped to be a source of assistance for other prisoners. Whilst acknowledging the study limitations, including low participant numbers ($n = 10$) and the absence of a follow-up due to study feasibility, it was concluded that the results

demonstrated strong potential and the need for innovative mental health promotion strategies within prisons (Keogh et al., 2017).

Delivering positive mental health promotion through sport-based interventions represents one such innovative delivery method which may be more acceptable within a prison culture. Woods et al. (2017), conducted a review of the perceived benefits of physically active sport-based interventions on the psychological well-being of people in prison. The review highlighted positive impacts on depression, stress and anxiety, alongside increases in self-confidence, self-esteem and pro-social identities. However, in a study conducted in England and Wales (Lewis & Meek, 2012) highlighted the low prevalence of direct mental health promotion within physical education (PE) programmes, with those explicitly aimed at improving mental health provided for in only 23 of the 142 secure estates surveyed (16%). Study 3 also highlighted multiple barriers for successfully implementing sport-based interventions, taking place over multiple weeks, within the operational restrictions of the prison environment.

However, an inability to consistently deliver physically active, longer duration, sport-based interventions within prison does not preclude sport settings from offering an innovative means of delivering interventions which promote positive mental health (Breslin, Haughey, Donnelly, Kearney, & Prentice, 2017). As part of the UK's national suicide prevention strategy, a Ministry of Justice policy paper entitled 'Preventing Suicide in England' (2017), highlights "State of Mind Sport" (SOMS) as a mental health and well-being initiative aimed at raising awareness and tackling stigma, as well as encouraging individuals to seek help when needed.

Awareness raising and resilience presentations are delivered by a nurse consultant in mental health and substance misuse, and ex-professional players who have experienced mental health problems. Reflecting its' origins, SOMS initially delivered within rugby league settings, however has now expanded into a wide variety of settings within the community.

If prisons are to successfully meet the challenge laid out by the WHO of becoming environments which promote positive mental health and well-being (WHO, 2007; 2014), research has consistently highlighted the need to better consider and integrate evidence of what works from community based initiatives (Fazel et al., 2016, Leight-Hunt & Perry, 2015; Portillo, Goldberg & Taxman, 2017; Santora et al., 2014), and SOMS is therefore one such initiative. Breslin et al. (In Press), conducted an evaluation of a State of Mind Ireland (SOMI) pilot program, a closely related multi-component mental health awareness intervention delivered to student athletes within a university environment. Results demonstrated an increased knowledge of mental health and intentions to engage and offer support to someone with a mental health problem.

Therefore, in the current study, a SOMS intervention was trialed in response to the need for more prison based health promotion evaluative studies (Woodall, 2016) and innovative mental health promotion strategies within prisons (Keogh et al., 2017). The study tested for effects of the intervention on prisoners' knowledge of mental health, their willingness to engage those with a mental health problem, and their psychological well-being and resilience in comparison to a control group, immediately after the intervention and at 8-weeks follow-up. Three hypothesis were

tested: (1) prisoners who receive the SOMS intervention will report a significantly different mean score on knowledge of mental health in comparison to those in a control group immediately post-program and at 8-week follow-up; (2) prisoners within the intervention group will report a significantly different mean score on intentions to engage and offer support to those with mental health issues, compared to a control; and (3) prisoners receiving the intervention will report significantly different mean scores on psychological well-being and resilience, than those in the control following the intervention. Due to the intervention being offered for the first time within the prison environment, the study will assess program format, impact and limitations within the prison environment. This was achieved through the incorporation of focus groups, conducted immediately following delivery of the intervention, which examined: (a) perceived prisoner impacts, if any, of the training; (b) what, if any, were the perceived benefits of exploring the issues of mental health and psychological well-being through sport; (c) whether the content delivered would translate into the prison environment; and (d) how the program might be enhanced.

6.3 Method

Participants

From this group, 47 serving prisoners and HMP Risley volunteered to participate in the study and formed the intervention group. A further 28 prisoners, who chose not to attend the SOMS pilot programme, agreed to participate in the study and were assigned to the control group. At 8-week follow-up, the sample size was reduced to 29 (17 intervention; 12 control).

For the full participant cohort of 75 prisoners, mean age was 37.30, (*S.D.* = 11.01). Mean sentence length in months was 241.4, (*S.D.* = 436.9), and mean time

served in months was 38.8, (*S.D.* = 73.7). The large standard deviation values observed are due to 13 prisoners serving indeterminate life tariffs. Table 5.1 below details participant age ranges and offences committed.

Offence	Frequency	Percent	Age Range	Frequency	Percent
Violence Against the Person	18	24.0	20-29	22	29.3
Sexual Offences	18	24.0	30-39	23	30.7
Drug Offences	17	22.7	40-49	20	26.7
Burglary	6	8.0	50-59	6	8.0
Fraud & Forgery	6	8.0	60-69	4	5.3
Motoring Offences	3	4.0			
Robbery	2	2.7			
Other	5	6.7			

Table 6.1: Frequencies for Offence Committed and Age Range

Study Design

A mixed between (Group) and within group (Time) design was adopted. The between groups factor had two levels, intervention and control. The within groups factor, Time, had two levels, baseline, and immediately post-program. The intervention group ($n = 47$, $M_{age} = 38.3$, $S.D. = 11.4$) received a sport-based multi-component mental health awareness program. The waiting list control group ($n = 28$, $M_{age} = 35.3$, $S.D. = 10.2$) received care as usual, and completed the pre and post questionnaires at the beginning and end of an education class or workshop, not related to mental health but matched for intervention duration.

State of Mind Sport: Mental Health and Well-being Program

State of Mind Sport (SOMS) aims to raise awareness of, and promote, psychological well-being and resilience, both in individuals and communities, tackle

stigma, signpost to and enable timely support, all designed to prevent suicide. The program was delivered by a team of ex-elite sportsmen and health care professionals who typically give talks in stigma free settings, such as sports clubs, schools, colleges and universities. SOMS staff delivering the program specifically use language men will identify with and use sporting concepts like setting goals and positive thinking. Over 25,000 individuals have attended sessions run by SOMS to date.

The SOMS pilot program within HMP Risley, the first to be delivered within prison, was initiated by the Suicide and Self Harm project group within the National Offender Management Service (NOMS), who also funded the delivery of the project within HMP Risley. The program was tailored to include a mixture of the original content, alongside specific contextual information relevant to the prison environment. Topics included in the program were: (a) examining the risks men face in relation to mental health and psychological well-being; (b) exploring risk factors such as stigma, macho-cultures, avoidance of help-seeking behaviours and negative coping strategies; (c) markers of stress and positive coping strategies; and (d) well-being and resilience, both an understanding of the concepts and practical steps to improve. Central to the program were two case-studies presented by ex-elite rugby league players who suffered from poor mental health and considered taking their own lives, prior to seeking help. Key messages they aimed to deliver included: (a) seek help/advice from someone you trust; (b) it is a strength, not a weakness to seek help; (c) respond to a mate who may be feeling down and not themselves; (d) the benefit of setting achievable goals and celebrating when achieved; and (e) we are all part of a team (www.stateofmindsport.org).

Procedure

Following ethical approval from the University Research Ethics Committee (UREC), Office for Research Ethics Committees, Northern Ireland (ORECNI; Ref 16/NI/0047) and the National Research Committee (NRC; Ref 2017-014) on behalf of National Offender Management Service (NOMS), HMP Risley approved a pilot of the SOMS intervention and associated exploratory evaluation study to assess for evidence based impact. To facilitate the research design, specifically the inclusion of an 8-week follow-up, all prisoners who had four months or more left to serve following conclusion of the intervention date, were invited to attend the SOMS training. Flyers advertising the training were designed in-house by the prisoners and distributed to prisoners meeting the inclusion criteria, along with a Participant Information Sheet introducing the research, explaining what it entailed, inviting questions and highlighting the voluntary nature of participating in the study.

Prisoners who volunteered to attend the training were asked to return their flyers, indicating which date and session they would like to attend (two dates were offered, each with a morning and afternoon session). On attendance at the training session, prisoners willing to participate in the study were provided with consent forms, given an opportunity to ask questions, and completed questionnaires prior to and immediately after the training. To accommodate all those expressing an interest in attending the training, three sessions were delivered: day one PM (24 attending, 21 study participants), and day two AM (14 attending, 10 study participants), and PM (19 attending, 16 study participants). There was also a session delivered to staff on the morning of the first day, which was not included for evaluation within the

current research. The training lasted approximately 75 mins. The control group consisted of a convenience sample of prisoners engaging with the regime and attending their training workshops and education classes on the same days as the training. They were provided with a Participant Information Sheet and Consent Form, alongside questionnaires, with the option to participate having read both. For the 8-week follow-up, participants received questionnaires via the internal mail and were asked to return them to a central internal address, and were subsequently collected by the lead researcher. Focus groups were held immediately following both of the training sessions on day two (Group A, $n = 8$; Group B, $n = 7$). The focus group planned for day one was cancelled due to unrest in one of the prison wings and associated security concerns.

Outcome measures

Participants completed four short questionnaires detailed below which are described in detail in Chapter 3.

Short Warwick Edinburgh Mental Well-being Scale

SWEMWBS is a 7-item questionnaire measuring positive aspects of mental health.

The Brief Resilience Scale

The Brief Resilience Scale (BRS) was created to assess the ability to bounce back or recover from stress, and is a reliable means of assessing resilience.

Mental Health Knowledge Schedule (MAKS)

The Mental Health Knowledge Schedule (MAKS), is a mental health knowledge related measure, which comprises domains of relevant evidence based knowledge in relation to stigma reduction (Evans-Lacko et al., 2010).

Reported and Intended Behaviour Scale (RIBS)

The Reported and Intended Behaviour Scale (RIBS) is a measure of mental health stigma related behaviour and has demonstrated good reliability and validity, with a reported Chronbach's alpha of 0.85 (Evans-Lacko et al., 2011).

Statistical Analysis

Prior to performing inferential statistical analysis across time-points, separate between groups t-tests (t) were calculated to establish if baseline differences were present between groups on any of the outcomes measures. For each outcome measure, a separate 2 (Group) x 2 (Time) mixed factors Analysis of Variance (ANOVA) was calculated to determine main effects and interaction effects (F). Where significant effects were observed, separate Analysis of Covariance (ANCOVA) tests were calculated to ensure these were not observed as a result of baseline scores. Prior to completing the parametric ANOVA tests, data was cleaned and checked for the following assumptions as advised by Field (2013): (a) there were no significant outliers in any groups; (b) dependent variables were normally distributed; and (c) there was homogeneity of variance and sphericity. If Mauchley's test of sphericity was $< .05$. Greenhouse-Geisser was used. Statistical significance was set at $p < 0.05$. Partial eta squared (η_p^2) effect size was calculated, providing an indication of what proportion of the variance in the dependent variable was

attributable to the intervention. All calculations were performed using the Statistical Package for the Social Sciences (SPSS) Version 22.

Focus Groups

Fifteen prisoners volunteered to participate in two focus groups ($n = 8$ and 7 respectively), immediately following delivery of the SOMS program and completion of the questionnaires. Both focus groups were audio recorded and transcribed verbatim. As the study was the evaluation of a pilot program, a General Inductive Analysis (GIA) approach was adopted to interpret focus group data. This approach was deemed appropriate as it: (a) enables researchers to condense raw textual data into a summary format; (b) facilitates the creation of linkages between research aims and summary findings from the raw data; and (c) can be used to inform a framework for interpretation of participant views (Thomas, 2006).

Trustworthiness of the data, analysis and final themes were established through a number of checks conducted throughout the study to ensure accurate and rigorous findings from the focus group are presented to the reader (Sparkes, 1998). The study included extensive participant quotes to elevate the validity of the findings, with the participant I.D. indicating the origin of each quote. All raw-data quotes were subjected to an audit trail (a mapping from the participant's spoken word to theme creation); and finally, detailed discussions were held between the lead researcher and his supervisors to explain and challenge emergent themes.

6.4 Results

Baseline Checks

There was no significant differences between the control and intervention groups at baseline for age, SWEMWBS, BRS, MAKS and the RIBS. Mean scores and standard deviations for all measures across time-points 1 and 2 are presented in Table 5.2.

	Time-point 1 (pre)		Time-point 2 (post)	
	Intervention	Control	Intervention	Control
	M (SD)	M (SD)	M (SD)	M (SD)
SWEMWBS	21.73 (4.79)	23.44 (4.88)	21.94 (5.62)	23.85 (4.78)
BRS	3.07 (0.96)	3.35 (0.88)	3.11 (0.90)	3.38 (0.89)
MAKS	21.21 (3.12)	20.71 (2.88)	23.09 (2.79)	20.89 (3.06)
RIBS	16.13 (3.29)	15.68 (3.22)	16.91 (2.56)	16.04 (2.80)

Table 6.2: Outcome Measure Mean Scores and Standard Deviations (Pre/Post)

Mental Health Knowledge Schedule

The highest achievable score for the MAKS was 30, based on the summing of responses to questions 1 - 6. Table 5.2 shows that for the intervention group, mean score for knowledge of mental health at baseline ($M = 21.21$, $S.D. = 3.12$) increased following the intervention ($M = 23.09$, $S.D. = 2.79$). To compare this increase in scores with the results for the control group, a 2x2 mixed factors ANOVA was conducted. The results of the ANOVA demonstrated a significant main effect of group, indicating that knowledge of mental health, was greater for the intervention group, $F(1, 73) = 5.244$, $p = 0.025$, $\eta_p^2 = 0.067$. There was also a significant

interaction effect for Group and Time, $F(1, 72) = 4.917$, $p = 0.03$, $\eta_p^2 = 0.063$, demonstrating a significant greater improvement in mental health knowledge score from baseline to immediately post-program for the intervention group. ANCOVA results showed that the significant intervention effect on post-program mental health knowledge scores remained after controlling for the baseline scores, $F(1, 72) = 10.290$, $p = 0.002$, $\eta_p^2 = 0.125$.

Questions 7-12 of the MAKS relate to knowledge of different types of mental illness. Separate Wilcoxon Z tests were calculated to examine whether any change in knowledge was significant between pre and immediately-post intervention testing. Results show that participants who received the SOMS training were more knowledgeable that stress ($Z = -3.300$, $p = 0.001$) was not a mental illness, and that drug addiction ($Z = -2.174$, $p = 0.03$) was a classified mental illness. There were no significant knowledge changes for grief, bipolar disorder, schizophrenia or depression for the intervention group, and no significant knowledge changes for the control group on any of the mental illnesses presented.

Reported and Intended Behaviour Scale

The highest achievable score for the RIBS was 20, based on summing responses to questions 5-8. Higher scores were indicative of a greater willingness to engage with someone with a mental health illness. For the RIBS there was no significant main effect of Group $F(1, 73) = 1.088$, $p = 0.30$, $\eta_p^2 = 0.15$. There was a borderline within group effect, $F(1, 73) = 3.340$, $p = 0.072$, $\eta_p^2 = 0.44$, wherein both groups increased their mean scores over time (see Table 5.2), however this could not

be attributed to the intervention as there was no significant interaction effect between Group and Time, $F(1, 73) = 0.472$, $p = 0.494$, $\eta_p^2 = 0.006$.

Brief Resilience Scale

For the BRS there was no significant main effect of group, indicating that ratings from the intervention and control groups were similar, $F(1, 73) = 1.711$, $p = .195$, $\eta_p^2 = 0.23$. There was also no within group effect, $F(1, 73) = 0.300$, $p = 0.586$, $\eta_p^2 = 0.004$, and no significant interaction effect between Group and Time, $F(1, 73) = 0.00$, $p = 0.985$, $\eta_p^2 = 0.00$.

Short Warwick Edinburgh Mental Well-being Scale

For the SWEMWBS there was no significant main effect of Group, $F(1, 73) = 2.297$, $p = .134$, $\eta_p^2 = 0.031$, no within group effect, $F(1, 73) = 2.121$, $p = 0.661$, $\eta_p^2 = 0.028$, and no significant interaction effect between Group and Time, $F(1, 73) = 0.194$, $p = 0.661$, $\eta_p^2 = 0.03$.

Results from 8-Week Follow-up

For the 29 prisoners (intervention, $n = 17$; control, $n = 12$) who completed questionnaires pre, post and 8-week follow-up a separate analysis was conducted.

Mean scores and standard deviations are provided in Table 5.3.

	Time-point 1		Time-point 2		Time-point 3	
	Intervention	Control	Intervention	Control	Intervention	Control
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
SWEMWBS	21.99 (4.12)	20.65 (2.85)	22.29 (4.59)	21.28 (2.60)	24.17 (3.64)	23.41 (5.10)
BRS	3.11 (0.76)	3.03 (0.85)	3.24 (0.79)	3.04 (0.89)	3.34 (0.79)	3.25 (1.07)
MAKS	21.53 (2.83)	20.67 (2.93)	22.53 (2.81)	21.25 (3.55)	22.12 (3.10)	21.0 (4.35)
RIBS	15.59 (3.50)	15.58 (4.25)	16.82 (2.27)	16.83 (3.13)	16.47 (1.74)	16.42 (4.56)

Table 6.3: Outcome Measure Mean Scores and Standard Deviations (Pre/Post/8-Week Follow-up)

To investigate the perceived benefits of the SOMS intervention over an 8-week period, separate 2 (Group) x 3 (Time) mixed factors ANOVAs were completed separately for the four outcome measures. Significant within group effects were reported for SWEMWBS $F(2, 54) = 10.985$, $p < 0.001$, $\eta_p^2 = 0.289$, and for the BRS $F(2, 54) = 3.297$, $p = 0.045$, $\eta_p^2 = 0.109$, with contrasts revealing significant increase in scores for both measures occurring between time-points 1 and 3.

However, these increases in mean well-being, and resilience scores could not be attributed to the SOMS intervention, as they were present for both the intervention and control groups (see Table 5.3) and there were no significant Group by Time interaction effects on either outcome measure. Mixed factor ANOVA results for the RIBS and MAKS returned no main or interaction effects.

Focus Group Results

There were four distinct themes which emerged from the focus groups, with 12 associated sub-categories (see Table 5.4). These are expanded upon below, with participant quotes to better illustrate each theme.

Theme	Categories
1 Perceived Impacts	a) Sense of Hope
	b) Sense of Perspective and Coping Efficacy
	c) Positive Social Networks
2 Sports Appeal	a) Attraction of Sport
	b) Sense of Legitimacy
3 Potential Barriers to Impact	a) Wary of Trusting Others
	b) Mental Health Stigma
	c) Lack of Appropriate Meeting Space
	d) Lack of Follow-up Support
4 Suggested Improvements	a) Handouts
	b) Prisoner Involvement

Table 6.4: Emergent Focus Group Themes

Theme: Perceived Impacts

The immediate feedback received from the SOMS training was very positive. Prisoners attending specifically highlighted the following impacts from attending the session:

Sense of Hope

Having a renewed sense of hope moving forward from the session, that with a positive attitude, willingness to open up to others, and support from others around you, negative thoughts and feelings could be better dealt with. Participant B3 captured this well in the following quote:

“I think as far as this program goes, it's good. It showed two gentlemen that have been through it and it's almost like a sign of hope. Obviously we're going through hardships now, maybe we've gone through hardships in the past and like you say, going outside is going to be a whole new world. We're going to be treated differently, we're ex-offenders now, we know it's tough getting jobs, there are going to be more hardships in the future as well. But seeing gentlemen that have been through, you couldn't imagine much worse than being disabled from the neck down, and going through that and seeing a positive attitude. I think that positivity that comes across is a big key. When you're surrounded in here, you're surrounded by a lot of negativity and you know, the positive, and the hope, and like you're saying, if you can do it with a smile your face, it does help a lot.”

Sense of Perspective and Coping Efficacy

There was a theme expressed that the session also offered those attending a sense of perspective with regard to their own personal problems. The prevailing view was that if the SOMS speakers could deal with the problems they faced (e.g., loss of identity, depression, disability, suicidal thoughts) and continue to be positive and succeed, then they could also re-frame their problems more positively. As a result of this, there was also a sense of improved coping efficacy among the prisoners.

Participants A4 and B4 capture these emerging themes in the following quotes:

“To hear you're paralyzed from the neck down, it's massive isn't it, and it sort of brings things into perspective. Obviously, suffering from depression anxiety and other stuff like... they've overcome massive things haven't they, and

they're not dwelling on the worst, they're taking the best, if you know what I mean?"(Participant A4)

"And this is exactly how we've been feeling. None of us would be sat here if we didn't feel that... we don't want to lie about it, we do want to learn, we do want to recover, because Lord willing, we're all going home one day and we don't want to go home stressed out. If you've got these new skills and these new tools, then we can go outside, hopefully a better person." (Participant B4)

Positive Social Networks

Reflecting on the benefit the presenters received from opening up to their friends and family, prisoners commented on the potential for benefit to be gained from using their own positive social networks more within prison, to open up to about their problems and confide in. Similarly, there was an increased awareness of the potential they as individuals had to act as a sounding board for other prisoners at risk of poor psychological well-being. However, this was tempered by a feeling that some prisoners did not want to hear other people's problems as they had enough to deal with; whilst other took the opposite view that listening to other people's problems helped them put theirs in perspective.

Theme: Sports Appeal

Attraction of Sport

Within the focus groups there was an even mix of those who were motivated to attend the training due to the elite sporting background and achievements of those presenting, as voiced by Participant A1: *"I think that makes it more appealing, that*

it was ex-professional rugby players". However, other participants commented they had no over-riding interest in sport or were aware of the two sportsmen. Their primary reason for attending was purely an interest in the topic: *"I'd never seen him before in my life, professional rugby player and that, but because they said they'd opened up, you're thinking yes alright I can relate to that, I can listen to that... that's what you need in here something like that."* Regardless of the sports appeal, there was a strong feeling that all the speakers and their stories were very relatable and this made the course very enjoyable and worthwhile.

"I think it's also good, especially with the speakers you had coming in, when you see somebody that's in this big lifestyle or big job or whatever, that they can be just as susceptible to you. It doesn't feel like you're this low little thing, that's just hiding in the corner. It could happen to anybody. It could happen to you, your friends, your family. Any situation can trigger a bad time in your life, prison being one of them." (Participant A2)

Sense of Legitimacy

There was a connection made with the prisoners in terms of the macho culture within sports, particularly in Rugby League and their own experience within the prison environment (and for several participants, their life before entering the prison), of a culture which prevented help-seeking behaviour. They felt the stories presented, and the impact they had on the speakers, afforded them a sense of legitimacy when experiencing similar feelings of depression or anxiety for example, and that it was okay to open up and discuss these feelings:

"The reason I came was for many years I've lived this... what we call this gangster's lifestyle, where I grew up with men, so we thought we were men. But when I've been in prison now, and when your own head's on the pillow and

you're on your own, nobody around, that's when you let it all out. Now I've realized I'm more at peace with myself today than what I was when I was out there thinking I was a real man. Whereas today, like that gentleman said, six foot four, 17 stone and not ashamed of crying. So I can feel like him today. That stigma, that thing. It was nice for me to come and share something.”
(Participant B2)

Theme: Potential Barriers to Longer-Term Impact

There were a number of potential barriers to longer term impacts of the SOM pilot program which emerged from the focus groups:

Wary of Trusting Others

It was highlighted that within the prison there can be issues around interpersonal trust and confidence in other prisoners to be genuinely interested in helping you, which could impact willingness to open up and talk freely. There was a sense that within prison you have to be guarded as others will be out to take advantage and that once trust has been betrayed then it can be hard to open up again. This was particularly poignant, as having fellow prisoners to trust in was considered important in the absence of family members or friends, sources of support who were perceived as critical in the stories of the SOMS presenters.

“It's hard in here because, like you're saying it's the social networks, sometimes they are easy to form but they're formed in the wrong way so you do notice the more and more time you spend in here, you do notice the more people that are in it for themselves... it's survival, and once you experience that, and some people experience that in a hard way, I've been exploited or

worse and that leads to segregation again, and trust issues. You've experienced it with one person and you start doubting everybody else even though these guys here might be honest Joes, it just might be that one person that has tainted our expectations.” (Participant B4)

“One of the big issues in prison is confidentiality. You can talk to listeners, you can talk, and all that sort of thing, then that becomes the difficulty. If somebody says, "I'm going to commit suicide," you can't just say, "Well I'm not going to tell anybody about that," because that's a lot to take on board, because you're taking that person's life on board, but they really don't need a whisper going around the wing or the staff talking amongst themselves in an unprofessional way, as they do about things.” (Participant A4)

Mental Health Stigma

Although the personal stories presented by the ex-elite rugby league players had presented an alternative narrative to a potentially toxic macho culture, concerns remained of the potential for stigmatisation upon revealing a mental health concern/issue. It was explained that these concerns re stigmatisation were applicable both within prison and on release, and could have a negative impact on how you were perceived by the prison regime, for example, in relation to issues like parole.

Lack of Appropriate Meeting Space

A lack of appropriate space for people to informally meet up and discuss their issues or concerns in confidence was identified as an environmental barrier within the prison.

Lack of Follow-up Support

Finally, there were also questions raised across both focus groups as to what follow-up services or support might be provided within the prison in terms of support for mental health and psychological well-being in connection with the information presented.

Theme: Suggested Improvements

Handouts

Suggestions for improvement focused on two main areas. The first of these was the provision of some form of related materials, both as handouts for those attending and/or similar information made available to those who would benefit from them, but were not ready to openly attend a program related to mental health. It was suggested that handouts after the session which captured the key learning points and tools discussed would serve as useful references to use moving forward, for example, participant B6 commented *“I took notes as fast as I could, but if you had a handout that would be better.”* Another participant, highlighted the potential need and benefit of associated materials for those not attending:

“You know some people had the courage to come today, but like we had talked about before, we know there's a stigma and there's people afraid to come forward. Some people need that kind of anonymity, either somebody they can trust or picking up a leaflet. So if there was information that could be supplied alongside these that we've provided to the wings, either to get in contact with yourselves about the programs that they run or the information about where we can find the relevant information if we needed it.” (Participant A1)

Prisoner Involvement

The second suggestion for improvement was that alongside the stories of the ex-sportsmen presented in the pilot program, similar sessions could be run with current or ex-offenders who had experiences of successfully coping with mental health issues, as this would be very relatable to the prisoners:

“I think one of the things that needs to be done is people who experience the situation with mental health problems and see what situation they've been in in prison, their problems, how they've been able to get help or not get help. Whether it's been appropriate, that sort of thing. I think you need a case study basis of people willing to do that.” (Participant A6)

6.5 Discussion

The aim of the current study was to evaluate a prison based pilot program, delivered by State of Mind Sport (SOMS), aimed at raising mental health awareness and resilience within an at-risk prison population. Specific aims were to determine the perceived benefits of the program on knowledge of mental health, intentions to engage and offer support to others suffering from mental illness, and impact on psychological well-being and resilience. Due to the exploratory nature of the study, focus groups were also conducted with the aim of eliciting prisoner perceptions on the format, impact and limitations of the pilot program.

The first hypothesis of the study was supported, with prisoners in the intervention group demonstrating a greater increase in their knowledge of mental health and ability to correctly classify types of mental illness (stress and drug-addiction), compared to those in the control group. These findings reflect those of non-prison based research, which also reported an increase in student-athlete mental

health knowledge following a SOMI program (Breslin et al., under review). These findings therefore demonstrate that even a short awareness program can successfully elevate prisoner's knowledge of mental health issues within the prison population, a need consistently highlighted in the relevant literature (Keogh et al., 2017; Lancet, 2017; MacNamara & Mannix-McNamara, 2014). However, results from the 8-week follow-up study, consisting of a reduced prisoner cohort, failed to demonstrate any long term impact on knowledge of mental health, with a slight decrease evident at follow-up. Therefore, one-off sessions might not be sufficient to raise and sustain an increase in the mental health knowledge of prisoners, pointing to the need for an associated on-going awareness campaign to build on any momentum achieved, such as the peer-led self-management project implemented at HMP & YOI Parc (Mental Health Foundation, 2017). Results from the qualitative analysis highlighted a prisoner desire for program hand-outs and follow-up materials, which could also assist in the maintenance of increased knowledge of mental health.

In contrast to the reported increase in knowledge of mental health, there was no associated significant increase in intentions to engage and offer support to those with mental health concerns as measured by the RIBS scale, therefore rejecting the second hypothesis. This is in contrast to the findings from Breslin et al. (In Press) which reported parallel increases in both mental health knowledge and intentions to engage, following awareness raising programs within student athlete populations and community sports clubs. However, within the current study, focus group results did report prisoner intentions to more readily act as a sounding board for others following the SOMS program, alongside an increased willingness to open up to

others, reflecting similar findings from a mental health wellness program in an Irish prison, Keogh et al. (2017).

Two issues might help explain the observed variance in intentions within the current study across the two research methods. The first being that positive prisoner intentions to help others expressed within the focus groups were tempered by the view held by some, that they had enough to deal with without acting as a confidant for fellow prisoners, which may have impacted responses to the items on the RIBS. The second issue might be the suitability of RIBS as a measure within the prison setting. Items enquire about the respondent's intentions to: "live with", "work with", "work nearby" and "continue a relationship" with someone suffering from a mental illness. Within prison, there is minimum autonomy in relation to these (and many other) variables (De Viggiani, 2012). Also, the point at which prisoners might be able to make such choices, that is upon their release, might be many years in the future and therefore hard to fully imagine. These two factors could combine to impact the validity of the RIBS questionnaire in its current format. Future studies should therefore consider an altered version of the RIBS presenting scenarios better reflecting probable personal interactions within the immediate prison environment.

The third hypothesis, that following the intervention, prisoners will score significantly higher on psychological well-being and resilience than those in the control, was not supported immediately post-program. Psychological well-being, as measured by SWEMWBS, reflects self-perceptions of positive 'functioning' more than 'feeling' (Tenant et al., 2007). Therefore, the absence of significantly enhanced levels of psychological functioning, which relate to personal feelings of value and

meaning in life (Huta, 2016), is perhaps not surprising immediately following a 75-minute program. Similarly, the building of resilience is an interactive evolving process (Herrman et al., 2011), which develops when provided with new adaptive coping strategies. Therefore, the messages and coping strategies delivered within SOMS, targeting increased psychological well-being and resilience, would more than likely require increased time to become embedded and reflected in the outcome measures used. Significant increases in psychological well-being and resilience were observed within the reduced cohort at the 8-week follow-up, however this was true for both the intervention and control groups, and could therefore not be attributed to the SOMS intervention.

This parallel increase in outcome scores at follow-up for well-being and resilience, between the control and intervention groups, might be a result of the reduced cohort numbers, in particular a control group consisting of only 12, and the resultant sensitivity to individual responses within that cohort. Future studies therefore need to employ multiple strategies to maintain high response rates. One option not utilised in the current study would be to consult regularly with an inmate liaison council (ILC) or similar, to establish and emphasise mutual goals, increasing prisoner buy-in to the study (Apa et al., 2012). A second reason for the observed increase in well-being and resilience for both the control and intervention groups could be due to more general efforts across the prison to raise awareness of mental health issues in response to the current rise in poor mental health and self-harm across the secure estate (JCHR, 2017; NAO, 2017), or a cross-fertilization of knowledge between the control and intervention groups.

With regard to positive impacts of the SOMS program, a theme which emerged was prisoner's increased willingness to confide in fellow inmates and talk about their vulnerabilities as a positive coping mechanism. This is in contrast to the stereotypical male response of stoicism when faced with emotional distress within prisons (Ricciardelli et al, 2015). However, the translation of any increase in intentions to open up and discuss mental health concerns into personal actions, was having to compete with an opposing emerging theme, namely the perceived likelihood of being stigmatised for doing so. Fellow prisoners and the prison system, were both identified as sources of stigmatisation. This view persisted despite the program addressing issues regarding mental health stigma, and could act as a barrier to improved psychological well-being and mental health. A lack of trust in other prisoners, and prison staff, and the potential for admissions of poor psychological well-being to negatively impact parole hearings, were also perceived as barriers to adopting a more transparent approach to discussing psychological ill-being.

Reported barriers such as fear of stigmatisation, lack of interpersonal trust with other prisoners and wariness of how the prison system will use mental health and well-being information all replicate findings from previous research examining help-seeking behaviour within prisons (De Viggiani, 2012; Howerton et al., 2007; Ricciardelli et al., 2015; Skogstad, Deane & Spicer, 2006). Avoidance of help-seeking behaviours is also linked to prison masculinities and a weighing up of the risks associated with such disclosures. Ricciardelli et al. (2015) explain how a "prisoner's inability to manage his anxiety and emotional instability in a normative masculine way (suppressing, ignoring or externalizing his emotions) created a vulnerability and forced him into a subordinate position". Programs such as SOMS

which start out as community based programs and transfer into the prison, must therefore ensure they gain a deep understanding of the nuances and specific difficulties prisoners may face when attempting to adopt the strategies presented to them. Failure to recognise and cater for these contextual difficulties may leave open the potential for negative impacts rather than benefits within prison. For example, raising hopes of improved psychological well-being through adopting increased openness and trust in others, but failing to provide the right safe spaces for developing these relationships with other prisoners; or not making provisions for appropriate on-going support following the workshop, in relation to developing and implementing new coping skills within the prison. Realising these benefits will take time and prisoners will therefore require a level of support and guidance as they attempt to adopt these new practices within the unique prison environment.

Also, if prisoners are to increase their self-efficacy of translating help-seeking intentions into actions, in light of the risks identified, program facilitators with expertise (such as those involved with SOMS) must continue to work in partnership with the prison and prisoners, or provide background support. Effecting a positive shift in entrenched prison cultural norms and masculinities, which act as barriers to help-seeking behaviours, will require sustained effort. The inclusion of positive prisoner testimonies to help-seeking behaviour and improved coping, as an improvement to programs such as SOMS was suggested by focus group participants, and could increase self-efficacy in relation to help-seeking within prison, despite the challenges outlined.

An emerging theme from the focus groups was that SOMS, as a mental health awareness program with its origins in the hyper masculine sport of rugby league, was well positioned to at least begin and effect a small shift in the restrictive toxic masculinities present within the prison environment (Kupers, 2005). The use of sport as a delivery vehicle, specifically ex-professional rugby league players in the case of the SOMS pilot program, was perceived to afford a legitimacy to the vulnerabilities of the prisoners and offer an alternative empowering narrative to that usually encountered within prison, and in some instances, lifestyles experienced before entering the prison. Although the challenges to enable any new narrative such as that presented by SOMS to gain momentum within the prison will be the same as those outlined above, the focus group results supported the use of a sport-based mental health awareness campaign as an acceptable and credible delivery format. This is an important finding, as although several focus group participants reported an increased motivation to attend due to the sport-based nature of the program, many others had no over-riding interest in sport and were attending due to the focus on mental health. However, those with no sporting interest still felt the messages delivered by the ex-professional sports players who presented their lived experiences within a stereotypical masculine culture, resonated with their situation.

Combined with an increased willingness to seek help from others and sense of perspective on their own problems, prisoners reported an increased sense of hope immediately following the SOMS program; hope they could overcome their own personal difficulties and hope they can transition through the gate a better person. This is an important outcome as a sense of hopelessness has been consistently linked with self-harm and suicide within the prison population (Chapman, Specht &

Cellucci, 2005; Fazel, Cartwright, Norman-Nott & Hawton, 2008; Gooding et al., 2017; Palmer & Connelly, 2005). In a paper reporting task force recommendations for suicide prevention in prisons, Konrad et al. (2007, pg.115), stated that “whatever individual stressors and vulnerabilities may be operating, a final common pathway leading an inmate to suicide seems to be feelings of hopelessness, a narrowing of future prospects, and a loss of options for coping.” Emergent focus group themes suggesting that the SOMS program did increase prisoner’s sense of hope, as well as their coping efficacy, are therefore significant positive findings in relation to improving psychological well-being and mental health with prisons.

With regard to improvements of the SOMS program, as highlighted earlier, prisoners would have liked handouts or associated information made available. A document containing information sign-posting prisoners to support within the prison was made available, but key messages and coping strategies delivered within the presentation were not included. The inclusion of prisoner presentations recounting improved coping, mental health and psychological well-being were also suggested. A final requirement identified within the focus groups to overcome potential barriers to impact, was appropriate informal meeting space within the prison. There was a view that operational and security requirements within the prison would preclude the availability of any relatively safe and private space for small groups of prisoners to talk openly about their vulnerabilities as encouraged by SOMS. These concerns echo those presented in previous research which described the loss of privacy, loss of independence and heightened surveillance experienced within prison and the negative impact they have on psychological well-being (De Viggiani, 2007).

There were several limitations within the current research. Considering sample size first, although 75 prisoners were initially recruited onto the study, only 29 completed the research at follow-up. Statistical tests were therefore under-powered and caution should be taken when generalising the results to the wider prison population. The small sample size also prohibited stratified analysis across variables such as offence committed, which may have revealed important differences in outcome measures across certain offences. There was no randomisation of participants and those within the comparison group represented a convenience sample who were successfully engaging with the prison regime, introducing the potential for bias when completing their questionnaires. Although focus group results immediately following the intervention revealed important findings, for example, an increased sense of hope and greater help-seeking intentions, there was no measure of whether such affective and potential behavioural changes persisted and translated into positive actions over time.

Finally, the study focused solely on males, an outcome of the male orientated origins of SOMS and the prison within which it was delivered. However, research shows that women suffer disproportionately high levels of stigmatisation and associated psychological ill-being when imprisoned (Fazel et al., 2016), and future studies could explore if similar programmes would translate into women's prisons. As highlighted within Chapter 4, participation in sport and physical activity among female prisoners was lower than that of male prisoners, Meek and Lewis (2014b), and this may act as a barrier to a successful transfer of SOMS into a women's prison. However, as reported in the current study, many males who attended the programme were not interested in sport or aware of the sports personalities presenting.

Nonetheless, they found the use of the sporting context a compelling narrative from which they could draw parallels to their own struggles with psychological well-being and dealing with stigmatisation. There is no extant community based research to draw on currently with regard to SOMS and benefit to women. However, SOMS have recently delivered the programme to small number on amateur women's sports teams and have also started collaborating with the newly formed "Her Rugby League" to address similar mental well-being issues. SOMS are also collaborating with female athletes who, for example, suffered from depression associated with the 'loss' of their career and impact on esteem and lifestyle, and would like to present their story to benefit others. Research associated these developments will assist greatly when considering if and how the SOMS programme may translate into women's prisons.

The outcomes of the research and limitations discussed give rise to several recommendations for future research and SOMS program development. Future studies should include additional measures to validate some of the findings discussed, for example, those related to increased help-seeking intentions and decreased feelings of hopelessness. The former finding would also suggest that program development, and associated evaluations could consider the role of behavior change theories, such as the Theory of Planned Behaviour (Ajzen, 1984), alongside Self-Determination Theory (Deci & Ryan, 2000) for example, in the successful design and delivery of key messages and subsequent prisoner behavioural adaptations. Future programs, originating within a community setting, should also consider how best to embed follow-up support and guidance for prisoners to maintain any positive affective, behavioural or cognitive changes within a seemingly discouraging prison

environment. Finally, although difficulties in recruiting and maintaining high participant numbers within prison research are well documented (Apa et al., 2012; Keogh et al., 2017; Maruca and Shelton, 2015) future research needs to develop new strategies in partnership with the prison system and prisoners, to sustain high quality research and drive evidence based policy to the benefit of prisoner health and well-being.

Conclusion

In conclusion, a short sport-based mental health awareness intervention delivered by ex-professional sportsmen and an experienced mental health nurses, was well received by a cohort of male prisoners and increased their knowledge of mental health issues. Participants also reported increased intentions to adopt more positive coping strategies, to seek-help and engage with others. However, no significant impacts were reported at 8 weeks follow-up. Programme enhancements have been suggested to improve the potential for impact on psychological well-being and resilience, and sustained increases in mental health knowledge. These included program support materials to take away, the inclusion of prisoner case-studies and the provision of appropriate and informal safe meeting spaces within prisons. Given the current levels of mental illness and increasing suicide and self-harm within prisons (Lancet; 2017; NAO; 2017), and lack of prison based evaluative studies to provide reliable evidence of what works (Woodall, 2016), this study makes an important contribution to the health promoting prison agenda.

7. General Discussion

This chapter will provide an overview of the four studies detailed within this doctoral programme of research, highlight and discuss main findings, and identify the contributions made to knowledge. Limitations of the studies will also be considered, prior to making recommendations for future research and impact on policy and practice.

7.1 Synthesis of Main Findings

Study 1

The primary aim of Study 1 was to conduct the first systematic review of the perceived benefits of SBIs on the psychological well-being of people in prison. Based on recommendations from the Medical Research Council (Moore et al., 2015), a secondary aim was to review the inclusion of psychological theories of health behaviour change in their design or evaluation. An additional aim of the systematic review was to establish the prevalence of complementary non-sporting components within SBIs and consider their constituent impact.

During the process of conducting the systematic review it became apparent that a diverse range of definitions and measurements were being used to explain and evaluate psychological well-being within the prison population. This is to be expected as psychological well-being has been described as a complex and multi-dimensional construct (Huta and Ryan, 2010). However, fundamental to this construct is a clear focus on the presence and/or enhancement of psychological well-being framed in the positive, rather than a focus on reducing negative ill-being (Huta, 2016; Seligman & Csikszentmihalyi, 2000; Tennant et al., 2007). In contrast to this, the systematic review revealed that 8 out of 12 quantitative outcomes

measures observed across the studies were exclusively deficit measures related to psychological well-being. The inclusion of deficit measures is symptomatic of the broader historical reactionary focus of prison healthcare on treating and reducing pathologies (De Viggiani, 2012). However, a more contemporary focus is predicated on proactively providing prisoners with strength-based positive coping skills to promote psychological well-being (WHO, 2008). Study 1 therefore highlighted the need for prison research to reflect and engage in a shift to better incorporate strength-based measures of psychological well-being within the prison population when assessing the effects of SBIs.

A further observation from the 14 studies included within the systematic review was a preference for single method study designs. Seven studies adopted a quantitative approach, three were qualitative, and four employed a mixed methods study design. While each research design presents its own strengths and weaknesses, it has been suggested that a mixed methods research design can offer a more comprehensive account of key research questions posed (Bryman, 2016; Harden, 2010). Therefore, it is suggested that the increased inclusion of mixed methods approaches, particularly in relation to impact on complex constructs such as psychological well-being, would better facilitate much needed evaluative prison-based health and well-being research (Woodall, 2016).

With regard to the primary aim of the systematic review, a positive impact on psychological well-being or related variables was reported in 12 of the 14 studies. Collectively, these results strongly advocate for increased implementation of SBIs to improve the psychological well-being of people in prison, and in doing so, act as a

buffer to the risks of mental ill-health (Keyes & Annas, 2009). However, methodological weaknesses were identified which give rise to caution in their interpretation. As highlighted already, measurement inconsistencies limit our understanding of the potential for SBIs to improve psychological well-being, as opposed to reduce related deficit measures of stress or depression. There was also a notable absence of follow-up measures to test continued impact on psychological well-being. Meek and Lewis (2014a) and Leberman (2007), represented the only two longitudinal studies out of 14, the former lasting two years, the latter three months. This mirrors previous criticisms of short-termism in non-prison based research related to the use of SBIs (Chamberlain, 2013; Biddle & Asare, 2011). The implementation of longitudinal research within prison populations is recognised as particularly difficult (Maruca and Shelton, 2015). However, enduring positive psychological functioning and self-realisation, as well as subjective positive affect, are required for robust psychological well-being. Therefore, reliable research into the longer terms impacts on suitable outcome measures is required to improve knowledge related to the impacts of SBIs within prison.

Just over half of the SBI studies (8 from 14) included in the systematic review could be more specifically classified as ‘sport-plus’ interventions (Coalter, 2007). Examples include, motivational goal-setting sessions, classroom based personal reflective activities, and careers service support. Hartmann (2003) has suggested that the success of sport based social interventions largely depends on the strength of their non-sport components. Establishing a collective view on the differential benefits of additional support services on psychological well-being within the prison based SBIs proved beyond the results of Study 1. The number of

studies reporting positive impacts for ‘sport-plus’ interventions was no greater than those classified as ‘sport-only’. However, the results from the former had a greater focus on positive impacts on pro-social behaviours, which aligns with the presence of positive relationships inherent to psychological well-being. Also, the heterogeneity of definitions and outcome measures associated with psychological well-being prevented clear comparisons being drawn on the relative merits of ‘sport-plus’ versus ‘sport-only’ SBIs. This replicates similar frustrations in assessing the impact and causal attributions of the varying components on the psychological well-being of at-risk youth (Haudenhuyse et al. 2014; Lubans et al. 2012). It would appear intuitively to suggest that ‘sport-plus’ SBIs would have a greater impact on psychological well-being, particularly the eudaimonic perspective. This is due to the additional role support services could offer in encouraging and maintaining self-realisation, as well as greater reporting of pro-social behaviours within the ‘sport-plus’ interventions. Further studies, with clear definitions and aligned outcomes measures of psychological well-being, and a focus on understanding the benefits of complementary components of SBIs within prison populations are required.

The systematic review contributed to knowledge by identifying a consistent lack of health behaviour change theories underpinning the design, delivery and/or evaluations of the SBIs. Only two studies made explicit reference to the theoretical links underpinning their intervention design. The absence of clear and coherent theoretical foundations within SBIs targeting at-risk youth has been identified previously as problematic, (Nichols & Crow, 2004; Smith & Waddington, 2004). The findings from Study 1 demonstrate that this remains a contemporary issue for prison-based SBIs. Guidance from the MRC (Moore et al., 2015) suggests the

inclusion of theory at all stages of health behaviour change interventions. Adopting this approach within the use of prison based SBIs will facilitate the testing of guiding theories against outcomes, aid with the refinement of interventions and enable increased replication of positive outcomes.

Study 2

In response to research gaps identified in the review (Study 1) and calls from previous researchers (Meek and Lewis, 2014a), the aim of Study 2 was to increase understanding of how SBIs, both the sporting and non-sporting components, can impact the psychological well-being of people in prison. A secondary aim, in response to the absence of theory based interventions identified in Study 1, was to link the emerging themes within the framework presented in Study 2 to psychological theories of behaviour change.

Inductive analysis of 16 interview transcripts with those who design, deliver and/ or manage prison SBIs identified six themes: (1) Relating and Relationships; (2) Sense of Achievement; (3) Sporting Occasions; (4) In Their Hands; (5) Facing Forward; and (6) Creating a Life Rhythm. A full description of each theme is provided in Chapter 4.

Several of the themes identified through Study 2, as mechanisms or outcomes of SBIs which facilitated positive impacts on psychological well-being, replicate and strengthen findings from previous prison research, predominantly focusing on prisoner views. For example, developing new improved relationships and communication skills (Andrews & Andrews, 2003; Meek & Lewis, 2014a; Gallant et

al., 2015), experiencing a new sense of achievement and increased empowerment (Leberman, 2007; Meek & Lewis, 2014a), as well as offering transitional support (Meek & Lewis, 2014a; 2014b; Ozano, 2008; Parker et al., 2014). As a number of similar mechanisms and outcomes were reported in Study 2, which focused on a different cohort from previous studies, this provides a level of cross-validation, and increased confidence in the findings.

In response to the absence of explicit and coherent theoretical links to explain how SBIs can improve psychological well-being identified in Study 1, Study 2 contributed to knowledge by linking the framework presented to extant psychological theories. These included: (1) Psychological Needs Theory (BPNT), (Ryan & Deci, 2001); (2) Social Identity Theory, Tajfel (1972); and (3) Self-Categorisation Theory, Turner (1985). Within BPNT, Ryan and Deci (2001) propose every individual has three fundamental psychological needs of autonomy, competence, and relatedness, that once met, result in increased psychological well-being (and conversely, if thwarted can harm psychological well-being). Each of these three psychological needs were clearly recognisable within the themes emerging from the interviews.

Satisfaction of the need for Relatedness through prison SBIs, was identified across several themes, primarily “Relating and Relationships”, but also new personal community links in “Facing Forward” and the shared experiences within “Sense of Achievement”. The development of new pro-social skills and improved relationships through sport, leading to improved psychological well-being is also supported by previous prison research (Dubberley, Parry & Baker, 2011; Gallant et al., 2015;

Leberman, 2007; Meek & Lewis, 2014a). Opportunities to satisfy the human need for competence (i.e. feelings of effectiveness in one's environment and experiencing opportunities to express one's capacities) were also present in several of the themes identified, most notably "Sense of Achievement", but also "Sporting Occasions". Exposure to novel sports provided platforms to experience sharp increases in perceived skill levels. Previous research has also credited involvement in sport with providing opportunities for increased competence, positive self-definition and self-presentation (Kehily, 2007; Leberman, 2007; Lubans et al, 2016; Meek & Lewis, 2014a). New competences gained through the SBIs can therefore lead to increased hedonic psychological well-being, at the point of achieving a new sporting goal, and eudaimonic well-being, through lasting increases in self-efficacy.

Previous prison research has advocated for greater opportunities to experience enhanced levels of autonomy and empowerment, as a route to achieving improved well-being goals central to the Health in Prisons Project (HIPP) (Woodall et al., 2013). Study 2 contributed to knowledge by demonstrating how SBIs enabled prisoners to experience feelings of autonomy and empowerment within the restrictive prison environment. Emergent themes of "In Their Hands", and also "Facing Forward", described how SBIs afforded prisoners clear opportunities to exercise varying levels of choice and empowerment. These ranged from simply choosing to become involved in more attractive interventions, to organising sports tournaments, allocating small budget spend and making choices to integrate with the community services on offer. These findings contributed to knowledge by demonstrating the potential for SBIs to create autonomy supportive environments

within the wider prison environment, which benefit hedonic and eudaimonic psychological well-being (Bean & Forneris, 2016).

The findings from study 2 also identified Social Identity Theory (Tajfel, 1972) as an appropriate theoretical inclusion within the proposed thematic framework. Previous research has highlighted the positive impacts on psychological well-being to be gained from identifying with in-groups which provide stability, meaning, purpose and direction (Haslam et al., 2009). Within Study 2, the emerging themes of “Facing Forward”, “Creating a Life Rhythm” and “Relating and Relationships”, all support and encourage the adoption of new pro-social identities through SBIs, an outcome reported in previous research (Gallant et al., 2015; Meek and Lewis, 2014a; Parker et al., 2014). Linked to this, Study 2 also showed a perceived increase in the permeability of current (potentially limiting), and new (healthier) in-groups (Tajfel and Turner, 1979). Facilitating these new perspectives is necessary if prisoners are to be positive about the possibilities of transitioning to more desirable in-groups and continuing to develop new pro-social identities (Haslam et al., 2009).

Study 2 also contributed to knowledge by identifying self-categorisation theory (Turner, 1985), an extension of Social Identity Theory (Tajfel, 1972), as appropriate for inclusion in our theoretical understanding of the perceived benefits of SBIs on prisoner’s psychological well-being. According to self-categorisation theory, whether, and which, social identities become salient is seen to be an interactive product of the fit of a particular categorisation and a person’s readiness to use it (Oakes et al., 1994). Emergent themes within Study 2 such as ‘Facing Forward’ and

‘Relating and Relationships’ highlighted the potential for SBIs to increase their participants perceived fit with a new in-group and their readiness to engage with it. This was applicable both in prison and upon release, and provided opportunities for improved hedonic and eudaimonic psychological well-being.

Study Three

A mixed-methods longitudinal intervention study was conducted within Hydebank Wood Secure College, Northern Ireland. The study assessed the perceived benefits of a 6-week introductory rugby coaching programme, Everybody Active 2020 (EBA2020). Complementing participant interviews, this study was novel in its inclusion of SWEMWBS, a specific measure of psychological well-being, in contrast to the historical focus on deficit measures identified in Study 2. A total of 29 interviews with 14 participants, spanning an 8-week period, were subjected to inductive thematic analysis and identified six themes: (1) Sports-orientated; (2) Mental Well-Being; (3) Sense of Achievement; (4) Relationships; (5) Frustrations; and (6) Lack of Longer Term Impact. A full description of the intervention, all measures used, and of each theme is presented in Chapter 5.

Focusing on the qualitative results first, Study 3 demonstrated positive short-term impacts on psychological well-being achieved through the EBA2020 intervention. In contrast, there was an absence of longer term impacts as perceived by the participants. Short-term impacts included a sense of excitement about having something to look forward to, mental escapism during participation, reduced stress and anger, and improved mood, during and immediately after participation. This replicates findings from previous research (Amtmann & Kukay, 2016; Bilderbeck et

al., 2013; Gallant et al., 2015; Hilyer et al., 1982). However, the absence of longer term effects contrasts with previous research from Meek and Lewis, (2014a), and Leberman, (2007). One potential reason for these results is the absence of additional forward-facing wrap-around support services and reflection exercises used to develop life skills and employability. Similar services were present in the two studies reporting longer term impacts, but not incorporated into the EBA2020 program. This would align with the view that well developed ‘sport-plus’ SBIs have greater potential for impact on psychological well-being, particularly the eudaimonic perspective, as discussed previously. However, this remains to be empirically tested with specific psychological well-being outcome measures.

It would be unjustified and an over-simplification to judge EBA2020 as unsuccessful due to a lack of longer-term impacts, as short-term distractions in prison are beneficial to psychological well-being (Blaauw & van Marle, 2007). Similarly, reduced rumination, as reported in Studies 2 and 3, has been shown to decrease the risk of mental ill-being within a non-prison population (Kinderman et al., 2015). However, the findings from Study 3 do strengthen the evidence supporting a ‘sport-plus’ model, as detailed within the framework presented in Study 2, for increasing psychological well-being. This would increase the potential for improved eudaimonic psychological well-being in particular, which although complementary to hedonic well-being, acts as a stronger buffer to poor mental health (Keyes & Annas, 2009).

In contrast to the qualitative findings in Study 3, there was no notable increase or decrease in the outcome measure of psychological well-being

(SWEMWBS), nor in any of the three BPNT outcome measures incorporated. These results therefore prevented any associated conclusions being drawn to confirm or reject the mediating relationships proposed between improved needs satisfaction and increased psychological well-being in Study 2. Further research is therefore required to statistically test and model the proposed mediating relationship between psychological well-being and BPNT within the prison environment. It is speculated that this research should be conducted within a 'sport-plus' model including wrap-around support to get longer term effects, as discussed above.

Study 3 revealed a contrast between the quantitative and qualitative results related to the satisfaction of participant psychological needs, detailed in BPNT. Although quantitative results for each of the three outcome measures remained largely unaffected throughout the intervention, qualitative results reported perceived improvements in relatedness and competence. Increased satisfaction of these needs was respectively achieved through improved teamwork and cooperation when playing rugby, and increased rugby knowledge, skills and abilities. However, these increases in needs satisfaction during participation in EBA2020, did not translate into parallel increases in satisfaction of the same needs within their daily prison environment, as evidenced by the largely unchanged outcome measures. Previous research has highlighted the danger of making assumptions about the successful transfer of positive personal outcomes from sporting to non-sporting environments (Jones et al., 2017; Turnnidge, Côté & Hancock, 2014). Findings from Study 3 would support this and resonate with the view advanced within the framework in Study 2, that intentions to deliver cross-over learning from the sports environment to that within the prison need to be well developed and explicit.

The absence of any observable transfer of needs satisfaction from the sporting environment to the prison could also be attributed to the low frequency and short duration of EBA2020 (one hour a week for six weeks). To expect the limited exposure to benefits experienced in EBA2020 to effectively act as a robust and durable barrier against the much greater exposure to risk factors within the prisons, which may combine to thwart needs satisfaction and reduce well-being, is unrealistic. The implementation of SBIs within prison need to be structured in a way which maximises the chances for successful transfer of benefits. This equates to maximum time afforded to their implementation and the inclusion of complementary support services highlighted within Study 2 and in previous research (Amtmann & Kukay, 2016; Meek & Lewis, 2014a; Martin et al., 2013; Parker et al., 2014)

Researchers have consistently highlighted the need to increase our understanding of how contextual factors, such as the surrounding environment and coaches, impact the outcomes of SBIs (Lubans et al, 2016; Biddle & Asare, 2011; Haudenhuyse et al., 2012; Jones et al., 2017). In response, Study 3 has contributed to knowledge by increasing our understanding of how these factors impacted SBI outcomes within prison in two main ways.

Firstly, the relationship between the coach and participants, based on mutual respect, trust and interest, was central to the perceived benefit attributed to the short-term psychological well-being of participants. This reflected findings from previous qualitative research (Leberman, 2007; Meek & Lewis, 2014a; Parker, et al., 2014). However, the inclusion of the Sports Climate Questionnaire in Study 3 was unique,

and provided an outcome measure of the level of autonomous support provided by the coach. The high participant ratings demonstrated the successful creation of an autonomy supportive coaching environment, which aligned with views expressed in participant interviews. Autonomy supportive environments are linked to the satisfaction of higher order needs (Bean & Forneris, 2016), and improved psychological well-being in sporting environments (Stebbing et al., 2015). Study 3 therefore highlighted the important contextual role of external coaches and the environment they create, in mediating positive impacts in prison based SBIs.

Secondly, the findings from Study 3 highlighted several environmental factors within the prison which limited the potential for positive impacts on psychological well-being, both short and long term. In contrast to the creation of an autonomy supportive coaching environment on the pitch, elements of the prison environment led to the thwarting of autonomous need satisfaction. An example being last minute notifications to prisoners that they would not be allowed to attend EBA2020 due to lockdowns. This resulted in extreme frustration for prisoners, undoing the positive influence on mood of having something to look forward to. The prison environment also consistently presented scheduling clashes with EBA2020, which was timetabled from 4pm to 5pm. Examples included dinner being temporarily rescheduled forcing prisoners to choose between eating or attending EBA2020, timetabled visits from family or friends which would be prioritised, or meetings with solicitors and/ or attendance at court. Study 3 therefore demonstrated that a commitment should be made by prison management to include SBIs as a core activity during the day, if maximum attendance and resultant benefit are to be achieved.

Compounding the issues of inconsistent attendance due to scheduling clashes, prisoner motivation to attend also decreased as they knew rugby would not be permitted within the prison upon completion of the 6-week program. These factors collectively led to increased frustration of those able to consistently attend and the coach; frustration that they could not play proper games with the players available, or progress through the drills as planned due to the coach working with different groupings each week. This replicates previous research which has reported environmental barriers to sports participation in prison (Brosens et al., 2017; Meek and Lewis, 2014b; Ozano, 2008; Martin et al., 2013). These findings contribute to current knowledge by highlighting the contextual factors which can limit the potential for impact on psychological well-being within limited duration prison SBIs. There is therefore a need for prison management and external SBI delivery personnel to work collaboratively to minimise any negative influences.

Study 4

The aim of Study 4 was to determine the perceived benefits of a sport-based mental health awareness intervention called State of Mind Sport (SOMS). Although a sport-based intervention, it differed from the interventions detailed in Chapters 2, 4 and 5 in two primary ways: (1) it was delivered in a traditional training room environment by ex-professional elite sportsmen and a mental health nurse with no physical sporting activity; and (2) it was delivered in a one-off 75-minute session. Mindful of these two primary differences, this SBI was judged suitable for inclusion in the thesis in response to the environmental barriers highlighted in Study 3 which negatively impacted intervention feasibility for multi-week programs and limited

their potential for impact on psychological well-being. Recommendations are made later in this chapter to improve the feasibility of programs similar to EBA2020. However, in cases where time and/or resources are judged too limited to implement a longer duration program, such as those discussed in Chapter 2, 4 and 5, or for prisoners not attracted to playing sport, SOMS might be identified as an alternative form of SBI to impact psychological well-being. It might also be considered as an addition to 'sport-plus' multi-component SBIs as discussed in previous chapters. A pilot prison based SOMS program was therefore judged as a valid inclusion in the thesis, worthy of evaluation to consider its merits for implementation in the ways described.

Study 4 adopted a longitudinal mixed methods research design, incorporating an intervention and waiting time control group. Outcome measures tested for changes across group and time in mental health knowledge (MAKS), intentions to engage with someone with a mental health illness (RIBS), psychological well-being (SWEMWBS) and resilience (BRS). Focus groups identified four main themes: (1) Perceived Impacts; (2) Sports Appeal; (3) Potential Barriers to Impact; and (4) Suggested Improvements. Full descriptions of the statistical analysis, results and qualitative themes are presented in Chapter 6

Study 4 was the first to examine the perceived benefits of a sport-based mental health awareness program delivered within prison. Regardless of participant interest in sport, the findings from the study revealed that the use of the sporting context as a delivery vehicle was positively received. Specifically, the hyper masculine sport of rugby league was perceived as a suitable context in which to

engage prisoners and explore mental health and well-being issues. Researchers have shown that athletes can feel under pressure to hide their vulnerabilities (Gucciardi, Hanton & Fleming, 2017), and this is replicated within the prison environment. Pressures exist to conform to hegemonic prison masculinities and avoid help-seeking behaviours for fear of stigmatisation and/ or victimisation (De Viggiani, 2012; Howerton et al., 2007; Ricciardelli et al., 2015). Participants successfully drew on parallels from the personal case-studies presented by ex-professional athletes and their own difficulties. Study 4 therefore contributed to knowledge by identifying that SBIs offer an attractive and well received option to meet the need for innovative mental health promotion strategies within prisons (Keogh et al., 2017).

Study 4 demonstrated that knowledge of mental health and ability to correctly classify types of mental illness within the intervention group increased significantly in comparison to a control group immediately following the intervention. These findings reveal that a short focused awareness program, delivered using a sport-based format, can be successful in raising knowledge of mental health within a population with limited previous experience of accessing similar services prior to incarceration (MacNamara & Mannix-McNamara, 2014).

Results from the remaining outcome measures at T2 (immediately post program) failed to demonstrate any significant increase within the intervention group in relation to intentions to engage individuals suffering from a mental-illness, psychological well-being or resilience. A lack of significant change in the latter two measures could be explained by the short time available, with enhanced

psychological well-being and resilience more likely to emerge, if at all, following a longer period of time (Herrman et al., 2011; Huta, 2016).

The absence of a quantitative increase in intentions to engage with others suffering from mental-illness is notable given the increase in mental health awareness and the associated emerging focus group theme of increased willingness to open up to, and engage with other prisoners on the same topic. This finding was also in contrast to previous research examining impacts of a similar program with student athletes which reported increased intentions to engage (Breslin et al., In Press). Reasons for the difference in results across the quantitative and qualitative measures could be explained by focus group discussions which highlighted remaining feelings of distrust amongst prisoners and a persistent fear of stigmatisation by other prisoners and prison management. These fears reflected findings from previous research (Kupers, 2005). A theme also emerged that individual prisoners often felt they had enough problems of their own to deal with, before engaging with others regarding theirs. Study 4 contributes to knowledge by highlighting the competing priorities and risks which influence prisoner's decisions to seek help and engage with each other on mental health issues, even when aware of the potential benefits of doing so. A second potential explanation for the absence of any increase in the RIBS outcome measures could be a lack of prison specific phrasing in the questionnaire, reflecting scenarios more likely to present themselves within prison. This represents an area for future research to address.

Results from the 8-week follow-up within Study 4 did not demonstrate significant change in any of the outcome measures used which could be attributed to

the intervention. Although it should be noted there was a reduced participant cohort of 29 involved in the 8-week follow-up analysis (from an original cohort of 75).

Knowledge of mental health issues was slightly reduced at 8 weeks from immediately post-program. Study 4 therefore determined that a one-off awareness courses was not sufficient to sustain such an increase. This finding would also add weight to the suggestion made in the focus groups that associated training materials should be made available to participants following similar programs to embed any learning.

Psychological well-being and resilience scores significantly increased within the intervention group from immediately post program, to 8-week follow-up. However, similar results were evident in the control group, therefore this increase could not be attributed to the intervention alone. Potential explanations for the parallel increase in scores across both groups could be due to the reduced sample size and increased sensitivity to individual differences. Also, broader efforts across the prison to improve mental health and well-being in response the current high levels of suicide and self-harm across the secure estate in England and Wales could have been a contributory factor (NAO, 2017). Study 4 therefore demonstrated that despite the pilot SOMS program being well received, there was no short or long term impact on psychological well-being. Future research, incorporating an enhanced program of follow-up support and improved participant numbers to more robustly test for the potential of longer-term impact on psychological well-being is encouraged.

Qualitative results from Study 4 reported an increased sense of perspective amongst the prisoners about their own problems, alongside increased hope that they could successfully cope and at some point be released a better person. Previous research has reported that feelings of hopelessness are linked with increased self-harm and suicide specifically within the prison population (Fazel et al., 2008; Gooding et al., 2017). These findings contribute to knowledge by demonstrating that a short mental health awareness course can successfully raise participants hope and coping efficacy, which have the potential to act as effective buffers to self-harm and suicide.

Considering the results from Study 4 collectively, a sport-based mental health awareness program offered an alternative and innovative way to engage prisoners and increase knowledge of mental health issues in the short term. Results also demonstrated that prisoner intentions to seek help and engage others in need of support for poor mental health and psychological ill-being can also be increased. However, the positive impacts on awareness were short term, and there was no short or long-term impact on psychological well-being and resilience. In line with conclusions made regarding EBA2020 in Study 2, program providers and prison management should consider working collaboratively to maximise exposure to, and on-going support within, similar programs if longer-term benefits to psychological well-being are to be realised.

7.2 Limitations

Study 1

Due to the varying level of demographic detail presented within the original studies included in the systematic review, a limitation of Study 1 was the absence of

any stratification in the results and discussion. Prison populations, reflecting those in the general community, are heterogeneous, and as such can perceive, experience, interpret and benefit from SBIs in a multitude of ways. Future systematic reviews could focus on particular demographic groupings (i.e., females, adolescents) within prisons to better understand the unique impacts SBIs can have on their particular psychological well-being needs.

Study 2

Due to the sample consisting exclusively of those involved in the design, delivery or oversight of SBIs within prisons, there is potential for bias in their views of the potential benefits of SBIs. Coalter (2015) warns against a dominance of evangelical beliefs and interest groups that only see the positive dimensions of sport, and as such restrict conceptual and methodological development within the broader sport for change arena. However, conscious of this during the study, views presented by the participants were probed and challenged during interviews to facilitate valid and reliable analysis and conclusions.

A second limitation was the absence of meaningful consultation with prisoners to ascertain their views on perceived impact and directly validate and/or challenge the views of those who design and deliver the SBIs. Ethical approval was granted for this within the study, however due to operational and security issues, access to one site was removed and the other did not facilitate sufficient data collection for meaningful input into the study. However, this learning experience in Study 2 helped shape the approach to Study 3, and a more positive outcome with regard to prisoner engagement.

Study 3

Sample size and consistency was identified as an issue in Study 3. One suggested reason for the drop-out was the inclusion of four data collection time-points, and associated questionnaire/ interview fatigue. A study design which formally engaged with participants at the start, end and follow-up only, omitting the intervention half-way point consultation, might have yielded better consistency across all time-points.

Although Hydebank Wood Secure College houses both males and females, the study only included male participants, reflecting those allowed to attend EBA2020. Future studies should build on previous research and further examine the impacts unique to female SBIs, or possibly mixed gender courses, which are very rare across prisons globally, but facilitated at Hydebank.

Study 4

Due to participant drop-out, the sample size reduced from 75 at T2, to 29 at T3. As a result statistical tests were underpowered. Also, due to the self-selected nature of the intervention group, there could have been a bias present toward a willingness to increase mental health awareness, impacting associated interaction effects at T2.

Although emerging themes from the focus groups reported an increased sense of hope and intention to engage in help seeking behaviours immediately following

the intervention, there was no associated affective measure of hope at T3, nor a measure of actual changes in help-seeking behaviour to test for longer term impacts on these variables. Future studies on similar interventions should explicate test for impacts on these outcome measures.

7.3 Recommendations and Conclusions

Future Research

- (1) The findings from this programme of research demonstrated short-term psychological benefits can be achieved through SBIs within prison. However, evidence of longer term impact on psychological well-being, and in particular on eudaimonic well-being, was lacking. Future studies are therefore required which concentrate efforts on designing and implementing research to robustly test for longer-term benefits of SBIs on psychological well-being within the prison population.
- (2) Robust and high quality research will require successful recruitment and retention of participants within prisons, and/or potentially on release. To achieve this researchers need to work collaboratively with MoJ, HMPPS, prison governors, POs, PEIs, and crucially prisoners, to develop strategies to sustain high quality research, increased participant numbers and associated statistical power. In doing so, the resultant outputs will help drive evidence based policy to the benefit of prisoner health and well-being aligned to HIPP.
- (3) The current programme of research contributed to knowledge by identifying psychological theories for inclusion in SBI design and delivery, in line with

guidance from the MRC (Moore et al., 2015). However, Study 3 only tested for one of these theories to keep the study design less demanding on participants, with the results inconclusive. Research is therefore required to further test the validity of the proposed theoretical inclusions within Study 2 and partially tested in Study 3.

- (4) The pilot SOMS program evaluated in Study 4 was not embedded within a theoretical framework. Future research should aim to identify and test suitable theories in similar SBIs. Given the emergent themes of willingness to be more open regarding mental health issues, and intentions to engage with other prisoners in Study 4, an appropriate theory for inclusion in the research would be the Theory of Planned Behaviour (Ajzen, 1984). This theory examines the role of attitudes, subjective norms and perceived behavioural control on intentions to perform particular behaviours. This is considered appropriate based on the competing interpersonal and environmental benefits and risks to prisoner well-being, resulting from engaging in help seeking behaviours as identified in Study 4.
- (5) Studies 3 and 4 reported contrasting results from the quantitative and qualitative measures employed. This highlighted the benefit and the increased richness of data obtained from measuring, testing and explaining the perceived benefits of SBIs on the psychological well-being of people in prison with a mixed methods approach. Study 1 also revealed a different outcome focus of the two methods, with quantitative studies focused predominantly on deficit measures and qualitative studies often reporting more well-being related outcomes, for

example, pro-social behaviours. Future research in the area should increase the use of a mixed methods approach in efforts to demonstrate reliable measures of impact; whilst soliciting and facilitating increased meaning and understanding from the views of prisoners as to why certain impacts translate well into the prison environment, or otherwise.

- (6) The WHO has recommended that an emphasis should be placed on proactive health promoting interventions within prison, rather than a reactionary focus on treating psychopathologies. Future research on psychological well-being in prison needs to align better with this aim. This will be achieved by adopting clear and consistent definitions of psychological well-being, and a deliberate shift to incorporating associated strengths based, rather than deficit, outcome measures.
- (7) The research base regarding the perceived benefits of SBIs on the psychological well-being of prison populations is focused predominantly on males, and in many cases young males. A prevalence for male focused research is to be expected given that males account for more than 9 out of 10 (93%) of the world's prisoners (Warnsley, 2016). Nonetheless, there remains a gap for an increased research focus on the potential impacts of SBIs on the psychological well-being of females, but also, for example, older males with differing physical abilities and psychological needs from younger males.

Recommendations for Policy and Practice

- (1) Based on the collective findings from the current programme of research, SBIs offer an evidenced based method to positively impact the short-term psychological well-being of prisoners and should be considered for increased implementation.
- (2) When implementing SBIs within prisons, prison management, the PE department and program facilitators need to work collaboratively to maximise prisoner access to the intervention once they have been recruited on to it. This could be achieved, for example, by improved timetabling which negates the impacts of lockdown due to consistent staff shortages at certain times of the day, or scheduling clashes with meal times, and visitations. Failure to do so can result in adverse impacts as evidenced in Study 3.
- (3) Stakeholders responsible for the design and delivery of SBIs should work collaboratively with appropriate partners, for example academic institutions with relevant experience, to incorporate suitable psychological theories into their design and testing, with the aim of maximising impact on psychological well-being. Work currently being facilitated through the UK Ministry of Justice and National Association of Sport for the Desistance of Crime (NASDC) is an example of positive efforts in this area.
- (4) Prison management and program providers should work collaboratively to build in additional wrap-around services into their SBIs in a “sport-plus” model, similar to a number of studies reviewed in Study 1, and adopted with the framework presented in Study 2. Adopting this approach effectively will

require sustained commitment from senior stakeholders within the MoJ and HMPPS, combined with increased resources and co-ordination from suitable delivery bodies and prison governors. The evidence from Studies 1 and 2 suggest that this approach will increase the probability of longer-term impact on psychological well-being. However, further longitudinal intervention based research is required to confirm this.

- (5) Studies 3 and 4 highlighted the impact contextual factors within prisons have on programme feasibility. Therefore, stakeholders responsible for the delivery of SBIs into the prison environment, which originated within a community setting, need to give careful consideration to how affective, behavioural or cognitive changes can be successfully implemented and crucially maintained following delivery. The prison environment presents unique and multiple hazards to sustained psychological well-being, and failure to anticipate these will significantly reduce resultant benefits.
- (6) Sport is not for all, and certain prison populations, for example females, can perceive institutional and/ or environmental barriers to their participation in sporting activities within prison. Where SBIs are offered as a route to improved psychological well-being, prisons need to be innovative in their sport offerings and pro-active in encouraging all populations to participate. Such actions will help guard against the creation of health inequalities through interventions that are disproportionately attractive to one demographic over another.

Conclusion

Based on the current programme of research, it is concluded that sport based interventions provide an alternative and attractive option to positively impact upon the short-term psychological well-being of people in prison. The findings from Study 2 detailed conditions under which longer-term impacts on psychological well-being could be achieved. For this to be realised, well designed and empirically tested ‘sport-plus’ interventions are required, achieved through trusted collaborations between justice bodies, community groups and academia. However, these collaborations will require a long term vision, commitment from the relevant bodies and investment of appropriate financial resources. Studies 3 and 4 highlighted that short-term interventions with no follow-up, whilst well-received at the time of delivery, fail to provide sustainable impact.

From a practical perspective, it is recognised that collaborative and appropriately-funded interventions and research will take time to secure and implement. In the interim, the use of sport based interventions for short(er) term impact on psychological well-being within prisons is still to be welcomed given both the positive effects, and high levels of mental illness reported. However, achieving a sustainable long-term impact on psychological well-being will ultimately be of maximum benefit to both prisoners and communities. Future research should therefore be aligned to establishing robust evidence in relation to the role sport based interventions may play in achieving this.

1. References

- Amorose, A. J. (2007). Coaching effectiveness. In M.S. Hagger & N.L.D. Chatzisarantis (Eds.), *Intrinsic motivation and self-determination in exercise and sport* (pp. 209–227). Leeds: Human Kinetics
- Amtmann, J., & Kukay, J. (2016). Fitness changes after an 8-week fitness coaching program at a regional youth detention facility. *Journal of Correctional Health Care*, 22(1), 75-83.
- Amtmann, J., Evans, R., & Powers, J. (2001). Measured and perceived effects of a correctional wellness program. *Corrections Compendium*, 26(9), 1-23.
- Apa, Z. L., Bai, R., Mukherejee, D. V., Herzig, C. T., Koenigsmann, C., Lowy, F. D., & Larson, E. L. (2012). Challenges and strategies for research in prisons. *Public Health Nursing*, 29(5), 467-472.
- Arent, S., Landers, M., & Etnier, J. (2000). The effects of exercise on mood in older adults: A meta-analytic Review. *Journal of Ageing and Physical Activity*, 8, 407-430.
- Atkins, M. R., Johnson, D. M., Force, E. C. & Petrie, T. A. (2015). Peers, parents, and coaches, Oh My! The relation of the motivational climate to boys' intention to continue in sport. *Psychology of Sport and Exercise* 16, 170–180
- Australian Institute of Health and Welfare (2015). *The health of Australia's prisoners 2015*. Canberra: AIHW.
- Bailey, R. (2005). Evaluating the relationship between physical education, sport and social inclusion. *Educational Review*, 57(1), 71-90.
- Baldwin, C. K. (2000). Theory, program and outcomes: Assessing the challenges of evaluating at-risk youth recreation programs. *Journal of Park and Recreation Administration*, 18, 19-33.

Barnett-Page, E., & Thomas, J. (2009). Methods for the synthesis of qualitative research: a critical review. *BMC Medical Research Methodology*, 9(1), 1.

Bateson, O. (2012) *Sport and arts interventions that impact on mental health: A Scoping Review*. DCAL Research and Statistics Branch.

Battaglia, C., di Cagno, A., Fiorilli, G., Giombini, A., Borrione, P., Baralla, F., ... & Pigozzi, F. (2014). Participation in a 9-month selected physical exercise programme enhances psychological well-being in a prison population. *Criminal Behaviour and Mental Health*, 25(5), 343-354.

Bean, C., & Forneris, T. (2016). Examining the importance of intentionally structuring the youth sport context to facilitate positive youth development. *Journal of Applied Sport Psychology*, 28(4), 410-425.

Becker, H. S. (2010). *Writing for social scientists: How to start and finish your thesis, book, or article* (2nd ed). Chicago, IL: University of Chicago Press

Biddle, S. J. H., & Asare, M. (2011). Physical activity and mental health in children and adolescents: a review of reviews. *British Journal of Sports Medicine*, 45, 886-895

Biddle, S. J. H., Mutrie, N. and Gorley, T. (2015). *Psychology of Physical Activity: Determinants, Well-being and Interventions*. 3rd ed. London: Routledge.

Bilderbeck, A. C., Farias, M., Brazil, I. A., Jakobowitz, S., & Wikholm, C. (2013). Participation in a 10-week course of yoga improves behavioural control and decreases psychological distress in a prison population. *Journal of Psychiatric Research*, 47(10), 1438-1445.

Blaauw, E., & van Marle, H. (2007). Mental health in prisons. *Health in prisons. A WHO guide to the essentials in prison health*. Copenhagen, WHO Regional Office for Europe.

- Bloom, B., Owen, B. A., & Covington, S. (2003). *Gender-responsive strategies: Research, practice, and guiding principles for women offenders*. Washington, DC: National Institute of Corrections.
- Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3(2), 77-101.
- Breslin, G., Haughey, T., Donnelly, P., Kearney, C. & Prentice, G. (In press). Promoting mental health awareness in sport clubs. *Journal of Public Mental Health*.
- Breslin, G., Haughey, T., O'Brien, W., Caulfiend, L., Robertson, A. & Lawlor, M. (In press) Increasing athlete knowledge of mental health and intentions to seek help: The State of Mind Ireland (SOMI) pilot program. *Journal of Clinical Sport Psychology*.
- Breslin, G., Shannon, S., Haughey, T.J., Donnelly, P. & Leavey, G. (In press). A systematic review of interventions to increase awareness of mental health and well-being in athletes, coaches and officials. *Systematic Reviews*, 6(1), 1-15
- Brickell, T. A., Chatzisarantis, N. L. D., & Pretty, G. M. (2006). Autonomy and control: augmenting the validity of the theory of planned behaviour in predicting exercise. *Journal of Health Psychology*, 11, 51–63
- Brosens, D., Dury, S., Vertonghen, J., Verté, D., & De Donder, L. (2017). Understanding the barriers to prisoners' participation in sport activities. *The Prison Journal*, 97(2), 181-201.
- Bryman, A. (2016). *Social Research Methods*. Oxford University Press.
- Buckaloo, B. J., Krug, K. S., & Nelson, K. B. (2009). Exercise and the low-security inmate changes in depression, stress, and anxiety. *The Prison Journal*, 89(3), 328-343.

- Cameron, M., & MacDougall, C. J. (2000). *Crime prevention through sport and physical activity (Vol. 165)*. Australian Institute of Criminology.
- Cashin, A., Potter, E., & Butler, T. (2008). The relationship between exercise and hopelessness in prison. *Journal of Psychiatric and Mental Health Nursing, 15*, 66–71
- Chamberlain, J. M. (2013) Sports-based intervention and the problem of youth offending: a diverse enough tool for a diverse society? *Sport in Society: Cultures, Commerce, Media, Politics, 16*:10, 1279-1292.
- Chapman, A. L., Specht, M. W., & Cellucci, T. (2005). Factors associated with suicide attempts in female inmates: The hegemony of hopelessness. *Suicide and Life-Threatening Behavior, 35*(5), 558-569.
- Claes, B., V. Lippens, P. Kennes, and H. Tournel. "Gender and prison ethnography: Some fieldwork implications." *The pains of doing criminological research* (2013): 59-71.
- Clark, H. J., Camiré, M., Wade, T. J., & Cairney, J. (2015). Sport participation and its association with social and psychological factors known to predict substance use and abuse among youth: A scoping review of the literature. *International Review of Sport and Exercise Psychology, 8*(1), 224-250.
- Coalter, F. (2007). *A wider social role for sport: Who's keeping the score?* London: Routledge.
- Coalter, F. (2009). *The Value of Sport: Crime Reduction and Community Safety*. London: Sport England/ UK Sport.
- Coalter, F. (2013). *Sport for development: what game are we playing?* Routledge.
- Coalter, F. (2015). Sport-for-change: Some thoughts from a sceptic. *Social Inclusion, 3*(3), 19-23.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396.

Collins, M., Henry, I., Houlihan, B., & Buller, J. (1999). *Sport and social exclusion*. Loughborough: Loughborough University.

Collins, M. F., & Kay, T. (2014). *Sport and social exclusion*. Routledge

Cooke, P. J., Melchert, T. P., & Connor, K. (2016) Measuring well-being: A review of instruments. *The Counseling Psychologist*, 44(5) 730-757.

Council of Europe. (2001). *Recommendation No. R. (92) 13 REV of the Committee of Ministers of Members States on the Revised European Sports Charter*. Strasbourg, France.

Cowen, E. L. (1991). In pursuit of wellness. *American Psychologist*, 46(4), 404.

Cullen., F. T., and Gilbert., K.,E. (2012) *Reaffirming Rehabilitation*. Routledge.

Craft, L. L. (2005). Exercise and clinical depression: examining two psychological mechanisms. *Psychology of Sport and Exercise*, 6(2), 151-171.

Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research*. LA: Sage

Department of Justice, Northern Ireland (nd). <https://www.justice-ni.gov.uk/articles/sport-and-recreation> Accessed on 4th April 2018

De Viggiani, N. (2007). Unhealthy prisons: exploring structural determinants of prison health. *Sociology of Health & Illness*, 29(1), 115-135.

De Viggiani, N. (2012). Trying to be something you are not: Masculine performances within a prison setting. *Men and Masculinities*, 15(3), 271-291.

- Doyle, L., de Vries, J., Higgins, A., Keogh, B., McBennett, P., & O'Shea, M. T. (2017). A mixed-methods longitudinal evaluation of a one-day mental health wellness intervention. *Health Education Journal*, 76(2), 244-256.
- Drake, D. H., & Harvey, J. (2014). Performing the role of ethnographer: Processing and managing the emotional dimensions of prison research. *International Journal of Social Research Methodology*, 17(5), 489-501.
- Draper, C. E., Errington, S., Omar, S., & Makhita, S. (2013). The therapeutic benefits of sport in the rehabilitation of young sexual offenders: A qualitative evaluation of the Fight with Insight programme. *Psychology of Sport and Exercise*, 14(4), 519-530.
- Dubberley, S., Parry, O., & Baker, S. A. (2011). Mending fences: reparation and the reorientation of young people in the secure estate. *Criminal Justice Studies*, 24(4), 337-350.
- Dumont, D. M., Brockmann, B., Dickman, S., Alexander, N., Rich, J. D. (2012) Public Health and the Epidemic of Incarceration. *Annual Review of Public Health*. 33(1), 325–339
- Durcan, G. (2016) *Mental health and criminal justice. Views from consultations across England & Wales*. Centre for Mental Health
- Earle, R. (2013). What do ethnographers do in prison?. *Criminal Justice Matters*, 91(1), 18-19.
- Edwards, M. B. (2015). The role of sport in community capacity building: An examination of sport for development research and practice. *Sport Management Review*, 18(1), 6-19.
- Faulkner, G., & Taylor, A. (2009). Promoting physical activity for mental health: A complex intervention? *Mental Health and Physical Activity*, 2, 1-3

Fazel, S., Cartwright, J., Norman-Nott, A., & Hawton, K. (2008). Suicide in prisoners: a systematic review of risk factors. *Journal of Clinical Psychiatry*, 69(11), 1721-31.

Fazel, S., Hayes, A. J., Bartellas, K., Clerici, M., & Trestman, R. (2016). Mental health of prisoners: prevalence, adverse outcomes, and interventions. *The Lancet Psychiatry*, 3(9), 871-881.

Ferszt, G. G., Salgado, D., DeFedele, S., & Leveillee, M. (2009). Houses of healing: A group intervention for grieving women in prison. *The Prison Journal*, 89(1), 46-64.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.

Flick, W. (2006). *An introduction to qualitative research 3rd Edition*. London: Sage Publications.

Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition*, 2(3a), 411-418.

Fraser, A., Gatherer, A., & Hayton, P. (2009), "Mental health in prison: great difficulties but are there opportunities?" *Public Health*. 123, 410–414.

Freud, S. (1920). *The collected works of Sigmund Freud* (Vol. 1). Library of Alexandria.

Gallant, D., Sherry, E., & Nicholson, M. (2015). Recreation or rehabilitation? Managing sport for development programs with prison populations. *Sport Management Review*, 18(1), 45-56.

Gatherer, A., Moller, L., & Hayton, P. (2005). The World Health Organisation European health in prison project after 10 years: persistent barriers and achievements". *American Journal of Public Health*, 95(10), 1696-700

Gillet, N., Vallerand, R. J., Amoura, S., & Baldes, B. (2010). Influence of coaches' autonomy support on athletes' motivation and sport performance: A test of the hierarchical model of intrinsic and extrinsic motivation. *Psychology of Sport and Exercise, 11*, 155–16.

Goffman, E. (1959). *The presentation of self in everyday life*. London, England: Penguin.

Gooding, P. A., Tarrier, N., Dunn, G., Awenat, Y., Shaw, J., Ulph, F., & Pratt, D. (2017). Psychological characteristics and predictors of suicide probability in high-risk prisoners. *Criminal Justice and Behavior, 44*(3), 321-335.

Gordon, B. R., McDowell, C. P., Lyons, M., & Herring, M. P. (2017). The Effects of Resistance Exercise Training on Anxiety: A Meta-Analysis and Meta-Regression Analysis of Randomized Controlled Trials. *Sports Medicine, 1-12*.

Gucciardi, D. F., Hanton, S., & Fleming, S. (2017). Are mental toughness and mental health contradictory concepts in elite sport? A narrative review of theory and evidence. *Journal of Science and Medicine in Sport, 20*(3), 307-311.

Gunnell, K. E., Crocker, P. R., Mack, D. E., Wilson, P. M., & Zumbo, B. D. (2014). Goal contents, motivation, psychological need satisfaction, well-being and physical activity: A test of self-determination theory over 6 months. *Psychology of Sport and Exercise, 15*(1), 19-29.

Harden, A. (2010) Mixed-Methods Systematic Reviews: Integrating Quantitative and Qualitative Findings. *FOCUS Technical Brief, 25*

Harner, H., Hanlon, A. L., & Garfinkel, M. (2010). Effect of Iyengar yoga on mental health of incarcerated women: A feasibility study. *Nursing Research, 59*(6), 389-399.

Hartmann, D. (2001). 'Notes on Midnight Basketball and the Cultural Politics of Recreation, Race and At-Risk Urban Youth'. *Journal of Sport and Social Issues*, 25, 339– 72.

Hartmann, D. (2003). Theorising sport as social intervention: A view from the grassroots. *Quest*, 55(2), 118-140.

Hartmann, D., & Kwauk, C. (2011). Sport and Development: An Overview, Critique, and Reconstruction. *Journal of Sport & Social Issues*, 35(3), 284–305.

Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well being: An emerging agenda for applied psychology. *Applied Psychology*, 58(1), 1–23.

Hassan, L., Birmingham, L., Harty, M. A., Jarrett, M., Jones, P., King, C... & Shaw, J. (2011), "Prospective cohort study of mental health during imprisonment." *British Journal of Psychiatry*, 198, 37–42.

Haudenhuyse, R. P., Theeboom, M., & Coalter, F. (2012). The potential of sports-based social interventions for vulnerable youth: Implications for sport coaches and youth workers. *Journal of Youth Studies*, 15(4), 437-454.

Haudenhuyse, R. P., Theeboom, M., & Skille, E. A. (2014). Towards understanding the potential of sports-based practices for socially vulnerable youth. *Sport in Society*, 17(2), 139-156.

Haver, A., Akerjordet, K., Caputi, P., Furunes, T., & Magee, C. (2015). Measuring mental well-being: A validation of the Short Warwick–Edinburgh Mental Well-Being Scale in Norwegian and Swedish. *Scandinavian Journal of Public Health*, 43(7), 721-727.

Hayton, P. (2007). "Protecting and promoting health in prisons: a settings approach", in Møller, L., Stöver, H., Jürgens, R., Gatherer, A. and Nikogosian, H. (Eds), *Health*

in Prisons: A WHO Guide to the Essentials in Prison Health. WHO Regional Office for Europe, Copenhagen, pp. 15-20.

Herrman, H., Stewart, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T. (2011). What is resilience? *The Canadian Journal of Psychiatry*, *56*(5), 258-265.

Hilyer, J. C., Wilson, D. G., Dillon, C., Caro, L., Jenkins, C., Spencer, W. A... & Booker, W. (1982). Physical fitness training and counselling as treatment for youthful offenders. *Journal of Counselling Psychology*, *29*(3), 292-303.

Holt, N. L. (Ed.). (2016). *Positive youth development through sport*. Routledge.

Howerton, A., Byng, R., Campbell, J., Hess, D., Owens, C., & Aitken, P. (2007). Understanding help seeking behaviour among male offenders: qualitative interview study. *Bmj*, *334*(7588), 303.

Huppert, F. A. (2009). A new approach to reducing disorder and improving well-being. *Perspectives on Psychological Science*, *4*(1), 108-111.

Huta, V. (2015). An overview of hedonic and eudaimonic well-being concepts. In L. Reinecke & M.B. Oliver (Eds.), *Handbook of media use and well-being*. New York: Routledge.

Huta, V. (2016). Eudaimonic and hedonic orientations: Theoretical considerations and research findings. In *Handbook of Eudaimonic Well-Being* (pp. 215-231). Springer International Publishing.

Huta, V., & Ryan, R. M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, *11*(6), 735-762.

Jahoda, M. (1958). *Current concepts of positive mental health*. New York: Basic Books.

- Jewkes, Y. (2012). Autoethnography and emotion as intellectual resources: Doing prison research differently. *Qualitative inquiry*, 18(1), 63-75.
- Jones, G. J., Edwards, M. B., Bocarro, J.N., Bunds, K.S. & Smith, J.W. (2017). An integrative review of sport-based youth development literature. *Sport in Society* 20(1), 161-179
- Jung, C. G. (1933). *Modern Man in Search of a Soul*. Psychology Press
- Kashdan, T. B., Biswas-Diener, R., & King, L. A. (2008). Reconsidering happiness: The costs of distinguishing between hedonics and eudaimonia. *The Journal of Positive Psychology*, 3(4), 219-233.
- Kay, T. (2009). Developing through sport: evidencing sport impacts on young people. *Sport in Society*, 12(9), 1177-1191.
- Kehily, M. J. (Ed.). (2007). *Understanding youth: Perspectives, identities & practices*. Sage Publications Ltd.
- Keogh, B., McBennett, P., deVries, J., Higgans, A., O'Shea, M., & Doyle, L. (2017). Prisoners perceptions of a mental health wellness workshop. *International Journal of Prisoner Health*, 13(2), 81-90.
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 43, 207-222.
- Keyes, C. L., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *The Journal of Positive Psychology*, 4(3), 197-201.
- Kinderman, P., Tai, S., Pontin, E., Schwannauer, M., Jarman, I., & Lisboa, P. (2015). Causal and mediating factors for anxiety, depression and well-being. *The British Journal of Psychiatry*, 206(6), 456-460.

- Kmet, L., Lee, R., Cook, L. (2004) *Standard quality assessment criteria for evaluating primary research papers from a variety of fields*. Alberta Heritage Foundation for Medical Research, Edmonton
- Konrad, N., Daigle, M. S., Daniel, A. E., Dear, G. E., Frottier, P., Hayes, L. M., ... & Sarchiapone, M. (2007). Preventing suicide in prisons, Part I: Recommendations from the International Association for Suicide Prevention Task Force on Suicide in Prisons. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, 28(3), 113.
- Krueger, R. A., & Casey, M. A. (2014). *Focus groups: A practical guide for applied research*. Sage publications.
- Kupers, T. A. (2005). Toxic masculinity as a barrier to mental health treatment in prison. *Journal of clinical psychology*, 61(6), 713-724.
- Lancet (2016) *Physical Activity 2016: Progress and Challenges Progress in physical activity over the Olympic quadrennium*. 388:1326-36 Retrieved from [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(16\)30581-5.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)30581-5.pdf)
- Leberman, S. (2007). Voices behind the walls: Female offenders and experiential learning. *Journal of Adventure Education & Outdoor Learning*, 7, 113–120
- Leigh-Hunt, N., & Perry, A. (2015). A systematic review of interventions for anxiety, depression, and PTSD in adult offenders. *International Journal of Offender Therapy and Comparative Criminology*, 59(7), 701-725.
- Lerner, R. M., Dowling, E. M., & Anderson, P. M. (2003) Positive Youth Development: Thriving as the Basis of Personhood and Civil Society. *Applied Developmental Science* 7(3), 172–180.
- Lewis, G., & Meek, R. (2012). Sport and physical education across the secure estate: An exploration of policy and practice. *Criminal Justice Matters*, 90(1), 32-34.

Libbus, M. K., Genovese, J. A., & Poole, M. J. (1994). Organized aerobic exercise and depression in male county jail inmates. *Journal of Correctional Health Care*, 1(2), 5-16.

Liebling, A., Tait, S., Stiles, A., Durie, L., Harvey, J., assisted by Rose, G. (2005). An Evaluation of the Safer Locals Programme, report submitted to the Home Office.

Lubans, D. R., Plotnikoff, R. C., & Lubans, N. J. (2012). Review: A systematic review of the impact of physical activity programmes on social and emotional well-being in at-risk youth. *Child and Adolescent Mental Health*, 17(1), 2-13

Lubans, D., Richards, J., Hillman, C., Faulkner, G., Beauchamp, M., Nilsson, M., ... & Biddle, S. (2016). Physical activity for cognitive and mental health in youth: A systematic review of mechanisms. *Pediatrics*, 138(3), [e20161642].

Mack, D. E., Wilson, P. M., Gunnell, K. E., Gilchrist, J. D., Kowalski, K. C., & Crocker, P. R. (2012). Health-enhancing physical activity: associations with markers of well-being. *Applied Psychology: Health and Well-Being*, 4(2), 127-150.

MacNamara, C., & Mannix-McNamara, P. (2014), "Placing the promotion of health and wellbeing on the Irish prison agenda - the complexity of health promotion in Irish prisons. *Irish Journal of Applied Social Studies*, 14(1), 49-59

Mageau, G. A., & Vallerand, R. J. (2003). The coach-athlete relationship: A motivational model. *Journal of Sports Sciences*, 21, 883–904.

Martin, R. E., Adamson, S., Korchinski, M., Granger-Brown, A., Ramsden, V. R., Buxton, J. A., Espinoza-Magana, N., ... & Hislop, T. G. (2013). Incarcerated women develop a nutrition and fitness program: Participatory research. *International Journal of Prisoner Health*, 9(3), 142-150.

Martos-Garcia, D., Devís-Devís, J., & Sparkes, A. C. (2009). Sport and physical activity in a high security Spanish prison: An ethnographic study of multiple meanings. *Sport, Education and Society*, 14, 77–96.

Maruca, A. T., & Shelton, D. (2015). Addressing methodological issues in correctional health research: A case report. *Journal of Forensic Nursing, 11*(2), 118-120.

Maruna, S. (2001). *Making good: How ex-convicts reform and rebuild their lives*. American Psychological Association.

Maslow, A. H. (1968). *Toward a Psychology of Being*, 2nd Edition. New York, NY: Van Nostrand.

Mason, P., Curl, A., & Kearns, A. (2016) Domains and levels of physical activity are linked to adult mental health and well-being in deprived neighbourhoods: A cross-sectional study. *Mental Health and Physical Activity, 11*, 19-29

Mason, P., Curl, A., & Kearns, A. (2016). Domains and levels of physical activity are linked to adult mental health and wellbeing in deprived neighbourhoods: A cross-sectional study. *Mental Health and Physical Activity, 11*, 19-28.

Maycock, M., & Hunt, K. (2017) *New Perspectives on Prison Masculinities*. London: Palgrave Macmillan

Meek, R., & Lewis, G. E. (2012). The role of sport in promoting prisoner health. *International Journal of Prisoner Health, 8*, 117–130.

Meek, R., & Lewis, G. E. (2014a). The impact of a sports initiative for young men in prison: Staff and participant perspectives. *Journal of Sport & Social Issues, 38*(2), 95– 123.

Meek, R., & Lewis, G. E. (2014b). Promoting well-being and desistance through sport and physical activity: the opportunities and barriers experienced by women in English prisons. *Women & Criminal Justice, 24*(2), 151-172.

Meek, R., Champion, N., & Klier, S. (2012). *Fit for Release. How sports based learning can help prisoners engage in education, gain employment and desist from crime*. Prisoners Education Trust, London

Mental Health Foundation (2017). Parc Prison: An evaluation of peer-led self-management training within a prison setting. Retrieved from <https://www.mentalhealth.org.uk/publications/parc-prison-impact-report>

Michie, S., & Abraham, C. (2004). Interventions to change health behaviours: evidence-based or evidence-inspired?. *Psychology & Health*, 19(1), 29-49.

Mills, A., Meek, R., & Gojkovic, D. (2012). Partners, guests or competitors: Relationships between criminal justice and third sector staff in prisons. *Probation Journal*, 59(4), 391-405.

Ministry of Justice (2017). Preventing suicide in England: Third progress report on the cross-government outcomes strategy to save lives Accessed on 19th June at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/582117/Suicide_report_2016_A.pdf

Ministry of Justice (2011). ‘Physical education (PE) for prisoners’, PSI 58/2011

Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., Stewart, L. A. & PRISMA-P Group. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews*, 4(1), 1.

Moore, G., Audrey, S., Barker, M., Bond, L., Bonell, C., Hardeman, W., ... & Baird, J. (2015). Process evaluation of complex interventions. Medical Research Council guidance. *BMJ* 2015;350:h1258

Munson, W. W. (1988). Effects of leisure education versus physical activity or informal discussion on behaviourally disordered youth offenders. *Adapted Physical Activity Quarterly*, 5(4), 305-317.

Nelson, M., Specian, V. L., Tracy, N. C., & DeMello, J. J. (2006). The effects of moderate physical activity on offenders in a rehabilitative program. *Journal of Correctional Education*, 57(4) 276-285.

Nichols, G. (2007). *Sport and crime reduction: The role of sports in tackling youth crime*. Abingdon: Routledge.

Nichols, G. & Crow, I. (2004), Measuring the Impact of Crime Reduction Interventions Involving Sports Activities for Young People, *The Howard Journal*, 43(3) 267-283.

Nichols, G., & Taylor, P. (1996). *West Yorkshire sports counselling: Final evaluation report*. Halifax: West Yorkshire Sports Counselling Association.

Norman, M. (2017). Sport in the underlife of a total institution: Social control and resistance in Canadian prisons. *International Review for the Sociology of Sport*, 52(5), 598-614.

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Oxford: Blackwell.

Ozano, K. A. (2008). "The Role of Physical Education, Sport and Exercise in a Female Prison." Unpublished MSc diss., University of Chester.

Palmer, E. J., & Connelly, R. (2005). Depression, hopelessness and suicide ideation among vulnerable prisoners. *Criminal Behaviour and Mental Health*, 15(3), 164-170.

Parker, A., Meek, R., & Lewis, G. (2014). Sport in a youth prison: Male young offenders' experiences of a sporting intervention. *Journal of Youth Studies*, 17(3), 381-396.

- Parkinson, M. (1998). *Combating social exclusion: lessons from area-based programmes in Europe*. Bristol: Policy Press.
- Patton, M. Q. (2015) *Qualitative Research and Evaluation Methods: Integrating Theory and Practice* (4th Ed). Thousands Oaks, CA: Sage Publications
- Peterson, C., Park, N., & Seligman, M. E. (2005). Orientations to happiness and life satisfaction: The full life versus the empty life. *Journal of Happiness Studies*, 6(1), 25-41.
- Piché, J., & Walby, K. (2010). Problematizing carceral tours. *The British Journal of Criminology*, 50(3), 570-581.
- Pillow, W. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *International journal of qualitative studies in education*, 16(2), 175-196.
- Pollard, E. L., & Lee, P. D. (2003). Child well-being: A systematic review of the literature. *Social Indicators Research*, 61(1), 59-78.
- Portillo, S., Goldberg, V., & Taxman, F. S. (2017). Mental Health Peer Navigators: Working With Criminal Justice–Involved Populations. *The Prison Journal*, 97(3), 318-341.
- Prochaska, J. O., Redding, C.A. and Evers, K.E. (2008) The Transtheoretical Model and Stages of Change. In Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.), *Health behavior and health education: theory, research, and practice*. (pp. 97-117) Jossey-Bass.
- Reicher, S. D., & Haslam, S.A. (2006). Rethinking the psychology of tyranny: The BBC Prison Experiment. *British Journal of Social Psychology*, 45, 1–40.

Reis, H. T., Sheldon, K. M., Gable, S.L., Roscoe, J. & Ryan, R.M. (2000). Daily well-being: The role of autonomy, competence and relatedness. *Personality and Social Psychology Bulletin*, 26, 419-435.

Rethorst, C. D., Wipfli, B. M., & Landers, D. M. (2009). The antidepressive effects of exercise: a meta-analysis of randomized trials. *Sports Medicine*, 39(6), 491-511.

Ricciardelli, R., Maier, K., & Hannah-Moffat, K. (2015). Strategic masculinities: Vulnerabilities, risk and the production of prison masculinities. *Theoretical Criminology*, 19(4), 491-513.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rowe, A. (2014). Situating the self in prison research: Power, identity, and epistemology. *Qualitative Inquiry*, 20(4), 404-416.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141-166.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719.

Samman, E. (2007). Psychological and subjective well-being: A proposal for internationally comparable indicators. *Oxford Development Studies* 35, 459-486

Sandford, R. A., Armour, K. M., & Warmington, P. C. (2006). Re-engaging disaffected youth through physical activity programmes. *British Educational Research Journal*, 32(2), 251-271.

Santora, L., Arild Espnes, G., & Lillefjell, M. (2014). Health promotion and prison settings. *International Journal of Prisoner Health, 10*(1), 27-37.

Schlosser, J. A. (2008). Issues in interviewing inmates: Navigating the methodological landmines of prison research. *Qualitative Inquiry, 14*(8), 1500-1525.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5-14

Seligman, M. E. P. (1998). President's column: Positive social science. *APA Monitor 29*.

Singh, N. A., Stavrinou, T. M., Scarbek, Y., Galambos, G., Liber, C., Fiatarone

Singh, M. A., & Morley, J. E. (2005). A randomized controlled trial of high versus low intensity weight training versus general practitioner care for clinical depression in older adults. *The Journals of Gerontology: Series A, 60*(6), 768-776.

Singleton, N., Meltzer, H., Gatward, R., Coid, J. and Deasy, D. (1998). *Psychiatric morbidity among prisoners in England and Wales*, London: The Stationery Office.

Skogstad, P., Deane, F. P., & Spicer, J. (2006). Social-cognitive determinants of help-seeking for mental health problems among prison inmates. *Criminal Behaviour and Mental Health, 16*(1), 43-59.

Smith, A. & Waddington, I. (2004). Using 'sport in the community schemes' to tackle crime and drug use among young people: some policy issues and problems. *European Physical Education Review, 10*(3); 279-298.

Smith, M. B. (1959). Research strategies toward a conception of positive mental health. *American Psychologist, 14*, 673-681.

Sparks, R., Bottoms, A. E., & Hay, W. (1996). *Prisons and the Problem of Order*. Oxford: Clarendon Press.

Sparkes, A. C. (2015). Developing mixed methods research in sport and exercise psychology: Critical reflections on five points of controversy. *Psychology of Sport and Exercise, 16*, 49-59.

Sparkes, A. (1998). Validity in qualitative inquiry and problems of criteria: Implications for sport psychology. *The Sport Psychologist, 12*, 363-386.

Spencer, A. (2007) Rethinking Imprisonment in Scotland: The Dilemma for Prison Reform and the Challenges Beyond. Available from:
<http://www.gov.scot/resource/doc/1102/0056826.pdf>

Spielberger, C. D., Gonzalez, H. P., Taylor, C. J., Anton, W. D., Algaze, B., Ross, G. R., & Westberry, L. G. (1980). *Test Anxiety Inventory: Preliminary professional manual*. Palo Alto, CA: Consulting Psychologists Press.

Steadman, H., Osher, F., Robbins, P., Case, B. & Samuels, S. (2009). Prevalance of serious mental illness among jail inmates. *Psychiatric Services, 60*, 761-765

Stebbing, J., Taylor, I. M., & Spray, C. M. (2015). The relationship between psychological well-and ill-being, and perceived autonomy supportive and controlling interpersonal styles: A longitudinal study of sport coaches. *Psychology of Sport and Exercise, 19*, 42-49.

Steger, M. F., & Shin, J. Y. (2012). Happiness and meaning in a technological age: A psychological approach. In P. Brey, A. Briggles, & E. Spence (Eds.), *The good life in a technological age* (pp 92-108). New York: Routledge

Stewart, D. (2008). *The problems and needs of newly sentenced prisoners: results from a national survey*. London: Ministry of Justice.

Stewart-Brown, S., & Janmohamed, K. (2008). Warwick-Edinburgh mental well-being scale. User guide. Version 1. Retrieved from
<http://www.healthscotland.com/documents/2702.aspx>

Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009) Internal Construct Validity of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS): A Rasch analysis using data from the Scottish Health Education Population Survey. *Health and Quality of Life Outcomes*, 9, 7-15

Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory (2nd ed)*. Thousand Oaks, CA: Sage

Tajfel, H. (1972). Experiments in a vacuum. In J. Israel & H. Tajfel (Eds.), *The context of social psychology: A critical assessment* (pp. 69–119). London: Academic Press

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W.G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks/Cole.

Taylor, P., Crow, I., Irvine, D., & Nichols, G. (1999). *Demanding physical programmes for young offenders under probation supervision* Research Findings 91 London: Home Office.

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., ... & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation. *Health and Quality of life Outcomes*, 5:63

Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237-246.

Travis, J., Western, B., & Redburn, F. S. (2014). *The growth of incarceration in the United States: Exploring causes and consequences*. National Academies Press.

Turner, J. C. (1985). Social categorization and the self-concept: A social cognitive theory of group behaviour. In E.J. Lawler (Ed.), *Advances in group processes: Theory and research* (vol. 2, pp. 77–122). Greenwich, CT: JAI.

Turnnidge, J., Côté, J., & Hancock, D. J. (2014). Positive youth development from sport to life: Explicit or implicit transfer?. *Quest*, 66(2), 203-217.

Ugelvik, T. (2014). *Power and resistance in prison: Doing time, doing freedom*. Springer.

United Nations (2015) Secretary-General's message on the International Day of Sport for Development and Peace; Retrieved from <https://www.un.org/sg/en/content/sg/statement/2015-04-06/secretary-generals-message-international-day-sport-development-and>

Van Hout, M. C., & Phelan, D. (2014). A Grounded Theory of Fitness Training and Sports Participation in Young Adult Male Offenders. *Journal of Sport & Social Issues*, 38(2), 124–147.

Warmseely, R. (2016) *World Prison Population List* (11th Edition). London: The Institute for Criminal Policy Research.

Watson, R., Stimpson, A., & Hostick, T. (2004). Prison health care: a review of the literature. *International Journal of Nursing Studies*, 41(2), 119-128.

West, S. T., & Crompton, J. L. (2001). A Review of the Impact of Adventure Programs on At-Risk Youth. *Journal of Park & Recreation Administration*, 19(2).

WHO (1999) *Mental Health Promotion in Prison: Report on a WHO Meeting*. World Health Organisation, Regional Office for Europe, Copenhagen.

WHO (2007), *Health in prisons: A WHO guide to the essential in prison health*, World Health Organisation, Copenhagen.

WHO (2008), *Trenčín statement on prisons and mental health*. Copenhagen: WHO Regional Office for Europe.

WHO (2014), Prisons and health. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0005/249188/Prisons-and-Health.pdf

WHO (2016), *Mental health: strengthening our response*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs220/en/>

WHO (2016), Physical Activity Strategy for the WHO European Region Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0014/311360/Physical-activity-strategy-2016-2025.pdf

Wildeman, C., & Wang, E. A. (2017). Mass incarceration, public health, and widening inequality in the USA. *The Lancet*, 389(10077), 1464-1474.

Williams, D., Collingwood, L., Coles, J., & Schmeer, S. (2015). Evaluating a rugby sport intervention programme for young offenders. *Journal of Criminal Psychology*, 5(1), 51-64.

Woodall, J. (2016). A critical examination of the health promoting prison two decades on. *Critical Public Health*, 26(5), 615-621.

Woodall, J., Dixey, R., & South, J. (2014). Control and choice in English prisons: developing health-promoting prisons. *Health Promotion International*, 29(3), 474-482.

Woods, D., Breslin, G., & Hassan, D. (2017) A systematic review of the impact of SBIs on the psychological well-being of people in prison. *Mental Health and Physical Activity* 12, 50-61

2. Appendices

7.1 Appendix 1A

RESEARCH INFORMATION SHEET

Title of study

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Invitation to take part in a study:

You are being invited to take part in a research study which I am conducting into the use of sport in prison to positively impact upon offender well-being in N. Ireland. This research is part of a PhD thesis in the Faculty of Life and Health Sciences at the University of Ulster. It is an independent study, funded by a scholarship from the University. Before you decide to take part, it is important that you understand what the research is for and what you will be asked to do. Please read the following information and do not hesitate to ask any questions about anything that might not be clear to you. Thank you for taking the time to consider this invitation.

Purpose of the study

This research study seeks to assess the impact, if any, of sport based programmes on offender well-being through a series of interviews with key informants. It aims to explore the design, delivery and perceived benefits of sports-based programmes, broadly grouped under the ‘Sport for Development’ (SfD) banner, in prisons.

Background to the study

All the main components of this study have been reviewed via the Sport and Exercise Science Research Institute (SESRI) Research and Ethics Committee, as well as The Office for Research Ethics Committees NI (ORECNI) to ensure that all elements of the research programme are conducted appropriately and adhere to the highest ethical standards.

Why have you been chosen for this study?

You have been chosen for the study because of your expertise and/or experience in one or more of the following areas:

- The design and delivery of sports-based programmes
- The delivery of sport within prisons or the youth justice system
- The evaluation and/or perceived benefits of sports-based programmes

Do you have to take part in the study?

7.1 Appendix 1A

Taking part in the study is voluntary. If you decide that you would like to take part in this study, you will be asked to sign a consent form and given this information sheet to keep. Should you choose to take part, you can also change your mind at any time and withdraw from the study without giving me a reason. On your withdrawal from the study, all identifiable information and records relating to you will be destroyed. Once data has been anonymised, it will be impossible to identify the origin and cannot be destroyed.

If you choose to take part in the research

If you decide to participate in the research, you will be invited to participate in an interview. I will arrange to meet with you individually to conduct an interview at a time and location convenient to you e.g. your workplace. Alternatively the interview can be conducted over Skype or Facetime. The interview itself will last around 45-60 minutes. In the interview, I will ask you about your views on the role of sport in improving psychological well-being in at-risk populations, the role of sport in prisons or the youth justice system, the design of sport based programmes and their underlying theories of change and the perceived benefits of such programmes on the participants. With your permission I would like to record the interview. This audio recording will be transcribed and then stored separately from any other files that would reveal your identity. If you would prefer not to be recorded, I will instead take hand-written notes. Following the interview, a transcript of the interview shall be provided to you for member checking purposes, that is, to confirm you are satisfied it accurately reflects our conversation and make any clarifications or additions.

Are there any risks to you in taking part in the research?

There are no known or anticipated risks to you as a participant in this study. At any time during the interview you are free to stop the interview if you do not wish it to continue. With regard to any risk of disclosure, all information received and recorded will be treated as confidential, in-line with the confidentiality details set-out below. An exception to this condition would be any information received which specifically relates to the endangerment of a specific individual/ individuals. In this instance, the research team would have a duty of care to report such information to the relevant care authorities.

Benefits of the research

As a researcher I am very interested in hearing about your views on a range of issues around sport and prisons. I also hope that you will find the opportunity to share your views and inform the research programme to be a positive experience. In overall terms it is hoped that the final report will make some positive contribution to a better understanding of the development,

7.1 Appendix 1A

delivery and evaluation of sport within prisons, and to the work of funders and voluntary and community sector organisations delivering projects.

Confidentiality

All information made available to the research team will be held securely and in confidence. All personal identifiers will be removed prior to publication as required by the Data Protection Act. The information you provide is confidential, and only anonymised quotes will be used. If you request confidentiality, beyond anonymised quotes, information you provide will be treated only as a source of background information, alongside literature-based research and interviews with others. You can request a copy of the interview transcript if you wish. The Freedom of Information Act ensures that you have access to certain non-personal or generalised data. All electronic data, which will be kept for ten years, will be stored during the research on a computer at the University of Ulster which is password secured. All printed materials, such as consent forms, will be stored securely in a locked filing cabinet at the University of Ulster. Anything that you tell me about yourself or your experiences in an interview will be kept confidential.

On completion of the study

When the research programme is concluded, the information gathered will contribute to the production of both my doctoral thesis and potentially to some academic articles and conference papers. Whilst the thesis, articles and papers will be publicly available documents, the outlined approach to confidentiality and anonymity will remain in place. In accordance with the University of Ulster's 'Code of Practice for Professional Integrity in the Conduct of Research', all the research data generated through the research programme will be kept for a period of 10 years after the completion of the study.

What if something goes wrong?

It is highly unlikely that anything will go wrong in this type of study. However, should this be the case, you can contact the Chief Investigator for this study, Dr. Gavin Breslin. The contact details are set out at the end of this document. Should you wish for any reason to contact a member of Ulster University regarding queries or a complaint, not affiliated with this particular research project, details are set out below.

Name	Telephone	Email
Prof Eric Wallace, Director of the Sport and Exercise Research Institute (SESRI)	+44 28 90366535	es.wallace@ulster.ac.uk

7.1 Appendix 1A

Contact details

If you have any queries about this research please contact: Ulster Sports Academy,
University of Ulster, Jordanstown Campus, Shore Road, Newtownabbey, Co. Antrim, BT37

0QB

Name	Telephone	Email
Dr. Gavin Breslin (Chief Investigator)	+44 28 90368478	g.breslin1@ulster.ac.uk
David Woods	0752 88 787 88	woods-d3@email.ulster.ac.uk

7.2 Appendix 1B

Interview Schedule

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a ‘guided’ conversation. Initial areas to cover are presented under the higher level research questions and will include:

a) Background information

1. Role

b) The current practice of using sport in prisons as a development tool across the UK and international settings

2. What is your knowledge / experience of the use of sport in prisons within [relevant geographical region]?
3. If not explicit in answer, seek to understand the specific nature of their experience with sport in prison, e.g., within a structured sports development programme or a different set-up? If limited, experience of working with related individuals?
4. How would you describe the current practice / prevalence of sport within prisons within [relevant geographic region]?
5. How do you feel this compares with other countries you may be aware of?

c) The perceived impact of sport on prisoners’ psychological well-being within prisons and during their reintegration into society

6. What impact do you feel sport has on offenders in prison?
7. What is the role of sport, if any, in specifically improving offender psychological well-being in prisons? What is the evidence for this?
8. Are you aware of any objective evidence in place to confirm or counter the view that sport in prison is of benefit to offender well-being?
9. Do you feel sport has a role to play in assisting offenders transitioning “through the gate”?

d) How programmes currently in use are designed, monitored and evaluated

10. How are the programmes, you have experience of, designed? [If no experience of specific structured development programme, substitute with their experience of sport in prisons, e.g., might be standard gym sessions or classes].
11. What are the key drivers when starting to put a programme together?

7.2 Appendix 1B

12. Has this evolved over time, and if so, how?
13. Do the offenders have any input into the provision of sport for development programmes (or sports provision more broadly)?
14. How is the use of sport for offender well-being monitored and evaluated?

e) What are the critical non-sporting mechanisms affecting programme success within the prisons

15. There is a view that the non-sporting elements of sport for development programmes are as important, if not more so, than the sporting elements. What are your views on this?
16. What are critical non-sporting elements or mechanisms which affect the success of any SfD programme in prison?
17. Do you feel sport has any unique properties as a tool for developing offender well-being, which other forms e.g. arts, do not possess?

f) The inclusion of psychological theories of change in the design and delivery of programmes

18. Are you aware of the inclusion of any theories of behaviour change or self-determination in the development of sports based programmes in prison?
19. Do you feel it is necessary to include academic theories of behaviour change when designing SfD programmes within prison (or elsewhere).

g) The willingness of prisoners to partake in sport for development programmes

20. In your experience what motivates offenders to partake in sports based programmes?
21. Do you think sport in prisons is more attractive to any particular demographic within prisons?
22. Do you feel sport in prisons can exclude any sections of the offender population? If so, how could this be improved?

h) Concluding Questions

23. Is there anything you would like to add that I might have missed or not covered?
24. Have you any questions / queries for me at this stage, e.g., what are the next stages of the research process?

7.3 Appendix 2A

RESEARCH INFORMATION SHEET – Programme Participants

Title of study

The Perceived Benefits of Sport on the Well-Being of Offenders in a Northern Ireland Prison

Invitation to take part in a study:

You are being invited to take part in a research study which I am conducting into the use of sport in prison to impact offender well-being in N. Ireland. This research is part of a PhD thesis in the Faculty of Life and Health Sciences at the University of Ulster. It is an independent study, funded by a scholarship from the University. Before you decide to take part, it is important that you understand what the research is for and what you will be asked to do. Please read the following information and do not hesitate to ask any questions about anything that might not be clear to you. All aspects of the study will be conducted in the English language. Thank you for taking the time to consider this invitation.

Purpose of the study

The aim of the research is to assess and understand the impact, if any, of sport based programmes on offender well-being through a mix of interviews and questionnaires with individuals.

Background to the study

This study has been reviewed by the Sport and Exercise Science Research Institute (SESRI) Research and Ethics Committee, as well as The Office for Research Ethics Committees NI (ORECNI) to ensure that all elements of the research programme are conducted appropriately and adhere to the highest ethical standards.

Why have you been chosen for this study?

You have been chosen for the study because you are taking part in the current sport for development programme at Hydebank Wood College and Women's Prison.

Do you have to take part in the study?

Taking part in the study is voluntary and under no circumstances should you feel like you have to take part. You can participate fully in the sports programme without participating in the research study. If you have any questions about the research please ask a member of the gym staff or your sentence manager, and if they cannot answer, a member of the research team will do so. We are also happy to sit down and talk through all the information in person with you to make sure you are happy with everything. We can do this as a group, or in a one to one meeting if you would rather.

If you do decide that you would like to take part in this study, you will be asked to sign a consent form and given this information sheet to keep. As before, if you have any questions about the consent form or would like a member of the research team to talk it through with you, this will be arranged.

Should you choose to take part, you can also change your mind at any time and withdraw from the study without giving me a reason. On your withdrawal from the study, all identifiable information and records relating to you will be destroyed. Once data has been anonymised, it will be impossible to identify the origin and cannot be destroyed.

7.3 Appendix 2A

If you choose to take part in the research

If you decide to participate in the research, you will be invited to participate in interviews and complete a questionnaire on four separate occasions:

1. Before the programme starts
2. Half-way through the programme
3. At the end of the programme
4. Three months following the programme

With regard to the three-month follow-up interview, if you are released from Hydebank Wood College by this stage, you will have the option to continue to participate in the research by meeting with the researcher in the community and conducting the interview. This will require you to exchange contact details with the researcher upon your release.

The interviews and questionnaire completion will take place within the prison at a time which does not interrupt your other commitments. The interviews will last approx. 30 mins and I will be asking you about your experience of the sports programme and how you think it impacts you. With your permission I would like to audio record the interview. This audio recording will be transcribed and then stored separately and confidentially from any other files that would reveal your identity. If you would prefer the interview was not recorded, I will instead take hand-written notes. The questionnaires will be completed by hand and take and involve you reading a series of statements and then ticking appropriate boxes. These will take approx.. 25mins in total. If you wish, I can assist with the completion of the questionnaires.

Are there any risks to you in taking part in the research?

There are no known or anticipated risks to you as a participant in this study. At any time during the research you are free to leave if you do not wish it to continue.

As we will be discussing how sport and exercise has, or could, impact your well-being, you may choose to provide us with personal or sensitive information about your own experiences. This will be treated with respect and confidentiality by the research team.

It is important to know that everything you tell us will be treated as confidential, in-line with the confidentiality details set-out below. An exception to this rule would be any information which specifically tells us that either yourself or someone else is in danger of being hurt or harmed. In this instance, the research team would have a duty of care to report this to the relevant care authorities.

Benefits of the research

As a researcher I am very interested in hearing about your views on a range of issues around sport and prisons. I also hope that you will find the opportunity to share your views, and think about how the programme is impacting you, to be a positive experience. In overall terms it is hoped that the final report will make some positive contribution to a better understanding of sport within prisons.

Confidentiality

All information made available to the research team will be held securely and in confidence. All personal identifiers will be removed prior to publication as required by the Data Protection Act. The information you provide is confidential, and only anonymised quotes will be used. If you request confidentiality, beyond anonymised quotes, information you provide will be treated only as a source of background information, alongside literature-based research and interviews with others. You can request a copy of the interview transcript if you wish. The Freedom of Information Act ensures that you have access to certain non-personal or generalised data. All electronic data, which will be kept for ten years, will be stored during the research on a computer at the University of Ulster which is password secured. All printed materials, such as consent

7.3 Appendix 2A

forms, will be stored securely in a locked filing cabinet at the University of Ulster. Anything that you tell me about yourself or your experiences in a focus group will be kept confidential.

On completion of the study

When the research programme is concluded, the information gathered will contribute to the production of both my doctoral thesis and potentially to some academic articles and conference papers. Whilst the thesis, articles and papers will be publicly available documents, the outlined approach to confidentiality and anonymity will remain in place. In accordance with the University of Ulster's 'Code of Practice for Professional Integrity in the Conduct of Research', all the research data generated through the research programme will be kept for a period of 10 years after the completion of the study.

What if something goes wrong?

It is highly unlikely that anything will go wrong in this type of study. However, should this be the case, you can contact the Chief Investigator for this study, Dr. Gavin Breslin. The contact details are set out at the end of this document. Should you wish for any reason to contact a member of Ulster University who is not part of the research team, regarding queries or a complaint, details for Prof Eric Wallace are set out below, and you will also be provided with a stamped address envelope to enable communication without using phone or email if preferred.

Name	Telephone	Email
Prof Eric Wallace, Director of the Sport and Exercise Research Institute (SESRI)	+44 28 90366535	es.wallace@ulster.ac.uk

Contact details

If you have any queries about this research please contact: Ulster Sports Academy, University of Ulster, Jordanstown Campus, Shore Road, Newtownabbey, Co. Antrim, BT37 0QB

Name	Telephone	Email
Dr Gavin Breslin (Chief Investigator)	+44 28 90368478	g.breslin1@ulster.ac.uk
David Woods	0752 88 787 88	woods-d3@email.ulster.ac.uk

7.3 Appendix 2A

RESEARCH INFORMATION SHEET – PRISON OFFICERS

Title of study

The Perceived Benefits of Sport on the Well-Being of Offenders in a Northern Ireland Prison

Invitation to take part in a study:

You are being invited to take part in a research study which I am conducting into the use of sport in prison to impact offender well-being in N. Ireland. This research is part of a PhD thesis in the Faculty of Life and Health Sciences at the University of Ulster. It is an independent study, funded by a scholarship from the University. Before you decide to take part, it is important that you understand what the research is for and what you will be asked to do. Please read the following information and do not hesitate to ask any questions about anything that might not be clear to you. Thank you for taking the time to consider this invitation.

Purpose of the study

The aim of the research is to assess and understand the impact, if any, of sport based programmes on offender well-being through a mix of interviews and questionnaires with individuals. Your input would be through interviews only.

Background to the study

This study has been reviewed by the Sport and Exercise Science Research Institute (SESRI) Research and Ethics Committee, as well as The Office for Research Ethics Committees NI (ORECNI) to ensure that all elements of the research programme are conducted appropriately and adhere to the highest ethical standards.

Why have you been chosen for this study?

You have been chosen for the study because you regularly come into contact with the students who will be participating in the current sport for development programme at Hydebank Wood College and Women's Prison.

Do you have to take part in the study?

Taking part in the study is voluntary and under no circumstances should you feel like you have to take part. If you have any questions about the research please ask a member of the research team through the details provided at the bottom of this sheet.

If you do decide that you would like to take part in this study, you will be asked to sign a consent form and given this information sheet to keep. As before, if you have any questions about the consent form or would like a member of the research team to talk it through with you, this will be arranged.

Should you choose to take part, you can also change your mind at any time and withdraw from the study without giving me a reason. On your withdrawal from the study, all identifiable information and records relating to you will be destroyed. Once data has been anonymised, it will be impossible to identify the origin and cannot be destroyed.

7.3 Appendix 2A

If you choose to take part in the research

If you decide to participate in the research, you will be invited to participate in interviews on three separate occasions:

1. Half-way through the programme
2. At the end of the programme
3. Three months following the programme.

The interviews will take place within the prison at a time which does not interrupt your other commitments. The interviews will last approx 45mins and I will be asking you about your experiences of the students who are participating on the programme and how you think it has impacted them and their interactions with you. With your permission I would like to audio record the interview. This audio recording will be transcribed and then stored separately and confidentially from any other files that would reveal your identity. If you would prefer the interview was not recorded, I will instead take hand-written notes.

Are there any risks to you in taking part in the research?

There are no known or anticipated risks to you as a participant in this study. At any time during the research you are free to leave if you do not wish it to continue.

It is important to know that everything you tell us will be treated as confidential, in-line with the confidentiality details set-out below. An exception to this rule would be any information which specifically tells us that either yourself or someone else is in danger of being hurt or harmed. In this instance, the research team would have a duty of care to report this to the relevant care authorities.

Benefits of the research

As a researcher I am very interested in hearing about your views on a range of issues around sport and prisons. I also hope that you will find the opportunity to share your views, and think about how the programme is impacting the prison environment, to be a positive experience. In overall terms it is hoped that the final report will make some positive contribution to a better understanding of sport within prisons.

Confidentiality

All information made available to the research team will be held securely and in confidence. All personal identifiers will be removed prior to publication as required by the Data Protection Act. The information you provide is confidential, and only anonymised quotes will be used. If you request confidentiality, beyond anonymised quotes, information you provide will be treated only as a source of background information, alongside literature-based research and interviews with others. You can request a copy of the interview transcript if you wish. The Freedom of Information Act ensures that you have access to certain non-personal or generalised data. All electronic data, which will be kept for ten years, will be stored during the research on a computer at the University of Ulster which is password secured. All printed materials, such as consent forms, will be stored securely in a locked filing cabinet at the University of Ulster. Anything that you tell me about yourself or your experiences in a focus group will be kept confidential.

On completion of the study

When the research programme is concluded, the information gathered will contribute to the production of both my doctoral thesis and potentially to some academic articles and conference papers. Whilst the thesis, articles and papers will be publicly available documents, the outlined approach to confidentiality and anonymity will remain in place. A summary of findings will also be provided to the NIPS and recommended for sharing with yourself as a key contributor. In accordance with the University of Ulster's 'Code of Practice for Professional Integrity in the Conduct of Research', all the research data generated through the research programme will be kept for a period of 10 years after the completion of the study.

7.3 Appendix 2A

What if something goes wrong?

It is highly unlikely that anything will go wrong in this type of study. However, should this be the case, you can contact the Chief Investigator for this study, Dr. Gavin Breslin. The contact details are set out at the end of this document. Should you wish for any reason to contact a member of Ulster University who is not part of the research team, regarding queries or a complaint, details are set out below.

Name	Telephone	Email
Prof Eric Wallace, Director of the Sport and Exercise Research Institute (SESRI)	+44 28 90366535	es.wallace@ulster.ac.uk

Contact details

If you have any queries about this research please contact: Ulster Sports Academy, University of Ulster, Jordanstown Campus, Shore Road, Newtownabbey, Co. Antrim, BT37 0QB

Name	Telephone	Email
Dr Gavin Breslin (Chief Investigator)	+44 28 90368478	g.breslin1@ulster.ac.uk
David Woods	0752 88 787 88	woods-d3@email.ulster.ac.uk

7.3 Appendix 2A

RESEARCH INFORMATION SHEET – Programme Facilitators

Title of study

The Perceived Benefits of Sport on the Well-Being of Offenders in a Northern Ireland Prison

Invitation to take part in a study:

You are being invited to take part in a research study which I am conducting into the use of sport in prison to impact offender well-being in N. Ireland. This research is part of a PhD thesis in the Faculty of Life and Health Sciences at the University of Ulster. It is an independent study, funded by a scholarship from the University. Before you decide to take part, it is important that you understand what the research is for and what you will be asked to do. Please read the following information and do not hesitate to ask any questions about anything that might not be clear to you. Thank you for taking the time to consider this invitation.

Purpose of the study

The aim of the research is to assess and understand the impact, if any, of sport based programmes on offender well-being through a mix of interviews and questionnaires with individuals. Your input would be through interviews only.

Background to the study

This study has been reviewed by the Sport and Exercise Science Research Institute (SESRI) Research and Ethics Committee, as well as The Office for Research Ethics Committees NI (ORECNI) to ensure that all elements of the research programme are conducted appropriately and adhere to the highest ethical standards.

Why have you been chosen for this study?

You have been chosen for the study because you are a key facilitator on the current sport for development programme at Hydebank Wood College and Women's Prison.

Do you have to take part in the study?

Taking part in the study is voluntary and under no circumstances should you feel like you have to take part. If you have any questions about the research please ask a member of the research team through the details provided at the bottom of this sheet.

If you do decide that you would like to take part in this study, you will be asked to sign a consent form and given this information sheet to keep. As before, if you have any questions about the consent form or would like a member of the research team to talk it through with you, this will be arranged.

Should you choose to take part, you can also change your mind at any time and withdraw from the study without giving me a reason. On your withdrawal from the study, all identifiable information and records relating to you will be destroyed. Once data has been anonymised, it will be impossible to identify the origin and cannot be destroyed.

7.3 Appendix 2A

If you choose to take part in the research

If you decide to participate in the research, you will be invited to participate in interviews on three separate occasions:

1. At the beginning of the programme
2. Half-way through the programme
3. At the end of the programme

The interviews will take place within the prison at a time which does not interrupt your other commitments. The interviews will last approx 45mins and I will be asking you about your experiences of facilitating on the programme and the students who are participating on the programme - how you think it has impacted them and their interactions with you. With your permission I would like to audio record the interview. This audio recording will be transcribed and then stored separately and confidentially from any other files that would reveal your identity. If you would prefer the interview was not recorded, I will instead take hand-written notes.

Are there any risks to you in taking part in the research?

There are no known or anticipated risks to you as a participant in this study. At any time during the research you are free to leave if you do not wish it to continue.

It is important to know that everything you tell us will be treated as confidential, in-line with the confidentiality details set-out below. An exception to this rule would be any information which specifically tells us that either yourself or someone else is in danger of being hurt or harmed. In this instance, the research team would have a duty of care to report this to the relevant care authorities.

Benefits of the research

As a researcher I am very interested in hearing about your views on a range of issues around sport and prisons. I also hope that you will find the opportunity to share your views, and think about how the programme is impacting the prison environment, to be a positive experience. In overall terms it is hoped that the final report will make some positive contribution to a better understanding of sport within prisons.

Confidentiality

All information made available to the research team will be held securely and in confidence. All personal identifiers will be removed prior to publication as required by the Data Protection Act. The information you provide is confidential, and only anonymised quotes will be used. If you request confidentiality, beyond anonymised quotes, information you provide will be treated only as a source of background information, alongside literature-based research and interviews with others. You can request a copy of the interview transcript if you wish. The Freedom of Information Act ensures that you have access to certain non-personal or generalised data. All electronic data, which will be kept for ten years, will be stored during the research on a computer at the University of Ulster which is password secured. All printed materials, such as consent forms, will be stored securely in a locked filing cabinet at the University of Ulster. Anything that you tell me about yourself or your experiences in a focus group will be kept confidential.

On completion of the study

When the research programme is concluded, the information gathered will contribute to the production of both my doctoral thesis and potentially to some academic articles and conference papers. Whilst the thesis, articles and papers will be publicly available documents, the outlined approach to confidentiality and anonymity will remain in place. A summary of findings will also be provided to the NIPS and recommended for sharing with yourself as a key contributor. In accordance with the University of Ulster's 'Code of Practice for Professional Integrity in the

7.3 Appendix 2A

Conduct of Research', all the research data generated through the research programme will be kept for a period of 10 years after the completion of the study.

What if something goes wrong?

It is highly unlikely that anything will go wrong in this type of study. However, should this be the case, you can contact the Chief Investigator for this study, Dr. Gavin Breslin. The contact details are set out at the end of this document. Should you wish for any reason to contact a member of Ulster University who is not part of the research team, regarding queries or a complaint, details are set out below.

Name	Telephone	Email
Prof Eric Wallace, Director of the Sport and Exercise Research Institute (SESRI)	+44 28 90366535	es.wallace@ulster.ac.uk

Contact details

If you have any queries about this research please contact: Ulster Sports Academy, University of Ulster, Jordanstown Campus, Shore Road, Newtownabbey, Co. Antrim, BT37 0QB

Name	Telephone	Email
Dr Gavin Breslin (Chief Investigator)	+44 28 90368478	g.breslin1@ulster.ac.uk
David Woods	0752 88 787 88	woods-d3@email.ulster.ac.uk

7.4 Appendix 2B

Interview Schedule – Participants (T1)

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a ‘guided’ conversation. Initial areas to cover are presented under the higher level research questions and will include:

- a) *The experience of those involved in the programme.*
 1. Why did you volunteer to take part in this programme?
 2. Do you have much experience of taking part in similar activities?
 3. What do you think will be expected of you during the programme?
 4. What are you looking forward to on the programme?
 5. Do you have any concerns about taking part in the programme?
- b) *The impact, if any, of an SfD programme on the psychological well-being of offenders.*
- c) *The impact, if any, of an SfD programmes on the three core psychological needs associated with Self-Determination Theory?*
 6. What benefits do you hope to gain from taking part on this programme?
 7. Specifically, do you expect the programme will have any impact on your wellbeing? (Provide explanation that wellbeing is referring to positive states of thinking, being, behaving and feeling e.g., life satisfaction, happiness, good relationships with others and self-acceptance.)
- d) *The offenders’ perception of the programme being facilitated in an autonomy supportive environment.*
 8. What are your expectations of the leaders on this programme?
 9. How you feel the leaders on the programme will be able to benefit you?
 10. Do you think there will be any challenges working with the leaders on the programme?
- e) *What, if any, are the critical non-sporting mechanisms of the programme?*
- f) *What, if any, are the key difference between this programme and any other programmes with similar aims and objectives?*
 11. What do you think will be the most useful parts of the programme?
 12. Do you think the actual sporting/ physical activities on the programme will be the most important?
 13. What do you feel are the unique impacts this programme might have on you compared with others you have experienced (sporting/ non-sporting)?
- g) *Concluding Questions*
 14. Is there anything you would like to add that I might have missed or not covered?
 15. Have you any questions / queries for me at this stage?

7.4 Appendix 2B

Interview Schedule – Participants (T2)

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a ‘guided’ conversation. Initial areas to cover are presented under the higher level research questions and will include:

- a) *The experience of those involved in the programme.*
 1. How have you found the programme so far?
 2. Is it what you expected it would be?
 3. How has it differed from and/ or met expectations to date?

- b) *The impact, if any, of an Sfd programme on the psychological well-being of offenders.*
- c) *The impact, if any, of an Sfd programmes on the three core psychological needs associated with Self-Determination Theory?*
 4. What benefits do you feel you are gaining from taking part on this programme so far?
 5. Specifically, do you think the programme is having any impact on your wellbeing? (*Provide explanation that wellbeing is referring to positive states of thinking, being, behaving and feeling e.g., life satisfaction, happiness, good relationships with others and self-acceptance.*)
 6. Specifically, do you think the programme is having any impact on your
 - I. Relationship with others
 - II. Self-belief in your ability to do tasks well
 - III. Ability to make your own decisions/ choices

- d) *The offenders’ perception of the programme being facilitated in an autonomy supportive environment.*
 7. How has your relationship with the leaders on the programme been?
 8. Do you think they are having an impact on how the programme is benefitting you?
 9. Do you think you are encouraged to make your own decisions and choices on the programme?

- e) *What, if any, are the critical non-sporting mechanisms of the programme?*
- f) *What, if any, are the key difference between this programme and any other programmes with similar aims and objectives?*
 10. What do you think are the most useful parts of the programme so far?
 11. Do you think the actual sporting/ physical activities on the programme are the most important?
 12. What do you feel are the benefits this programme is having on you compared with others you have experienced (sporting/ non-sporting)?
- g) *Concluding Questions*
 13. Is there anything you would like to add that I might have missed or not covered?
 14. Have you any questions / queries for me at this stage?

7.4 Appendix 2B

Interview Schedule – Participants (T3)

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a 'guided' conversation. Initial areas to cover are presented under the higher level research questions and will include:

- a) *The experience of those involved in the programme.*
 1. What was your overall experience of the programme?
 2. Is it what you expected it would be?
 3. How did it differ from and/ or met your expectations?
 4. Did you enjoy it? (if not discussed already)

- b) *The impact, if any, of an SfD programme on the psychological well-being of offenders.*
- c) *The impact, if any, of an SfD programmes on the three core psychological needs associated with Self-Determination Theory?*
 5. How do you think you have benefitted from taking part on the programme?
 6. Specifically, do you think the programme has had any impact on your wellbeing?
(Provide explanation that wellbeing is referring to positive states of thinking, being, behaving and feeling e.g., life satisfaction, happiness, good relationships with others and self-acceptance.)
 7. Specifically, do you think the programme has had any impact on your
 - I. Relationship with others
 - II. Self-belief in your ability to do tasks well
 - III. Ability to make your own decisions/ choices

- d) *The offenders' perception of the programme being facilitated in an autonomy supportive environment.*
 8. How was your relationship with the leaders on the programme throughout?
 9. Do you think the actions of the leaders were important to how useful you found the programme?
 10. Do you think you were encouraged to make your own decisions and choices throughout the programme?
 11. Do you think this will impact how you make decisions in the future?

- e) *What, if any, are the critical non-sporting mechanisms of the programme?*
- f) *What, if any, are the key difference between this programme and any other programmes with similar aims and objectives?*
 12. What do you think were the most useful parts of the programme?
 13. Do you think the actual sporting/ physical activities on the programme were the most important?
 14. Do you think you gained anything from this programme due to it being sports based, that you haven't from other non-sports based programmes?

- g) *Concluding Questions*
 15. Is there anything you would like to add that I might have missed or not covered?

7.4 Appendix 2B

16. Have you any questions / queries for me at this stage?

7.4 Appendix 2B

Interview Schedule – Participants (T4)

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a ‘guided’ conversation. Initial areas to cover are presented under the higher level research questions and will include:

- a) *The experience of those involved in the programme.*
 1. Looking back, what are your stand-out memories of the programme?
 2. Have you continued with any of the activities you participated in whilst on the programme?
 3. Did you make any plans to change anything at the end of the programme, if so, how are they going?

- b) *The impact, if any, of an SfD programme on the psychological well-being of offenders.*
- c) *The impact, if any, of an SfD programmes on the three core psychological needs associated with Self-Determination Theory?*
 4. Do you think there has been any lasting benefit from the programme at this stage?
 5. Specifically, do you think the programme had any lasting impact on your wellbeing? (Provide explanation that wellbeing is referring to positive states of thinking, being, behaving and feeling e.g., life satisfaction, happiness, good relationships with others and self-acceptance.)
 6. Specifically, do you think the programme had any lasting impact on your:
 - I. Relationship with others
 - II. Self-belief in your ability to do tasks well
 - III. Ability to make your own decisions/ choices
 7. Has there been any unexpected impacts or challenges from being on the programme?

- d) *The offenders’ perception of the programme being facilitated in an autonomy supportive environment.*
 8. How has your relationship been with the leaders of the programme since the programme?
 9. Do you think there is a difference between how you got on with the leaders on the programme and now?
 10. Are you encouraged to make your own decisions and choices where possible now? If so, what sort of decisions/ choices?

- e) *What, if any, are the critical non-sporting mechanisms of the programme?*
- f) *What, if any, are the key difference between this programme and any other programmes with similar aims and objectives?*
 11. Have you taken part in any other programmes since the sports programme? If so, what are the key differences/ similarities affecting impact?
 12. Looking back now, what do you think were the most useful parts of the programme?
 13. Do you think the actual sporting/ physical activities on the programme were the most important?

7.4 Appendix 2B

g) Concluding Questions

14. Is there anything you would like to add that I might have missed or not covered?
15. Have you any questions / queries for me at this stage?

7.4 Appendix 2B

Interview Schedule – PEI

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a 'guided' conversation. Initial areas to cover are presented under the higher level research questions and will include:

a) The experience of those involved in the programme (in this case the experience of those coming into contact with those involved in the programme)

1. Do you feel there has been any change in your interactions since the students have been participating on the programme?

b) The impact, if any, of an Sfd programme on the psychological well-being of offenders.

c) The impact, if any, of an Sfd programmes on the three core psychological needs associated with Self-Determination Theory?

2. Specifically, do you feel the programme has had any impact on the psychological well-being of the students to date? (*Provide explanation that well-being is referring to positive states of thinking, being, behaving and feeling e.g., life satisfaction, happiness, good relationships with others and self-acceptance.*)
3. Specifically, do you think the programme has had any impact on the student's:
 - i. relationship with others?;
 - ii. their competence?;
 - iii. their perception of autonomy?

d) The offenders' perception of the programme being facilitated in an autonomy supportive environment.

N/a

e) What, if any, are the critical non-sporting mechanisms of the programme?

f) What, if any, are the key difference between this programme and any other programmes with similar aims and objectives?

4. Do the students make any reference to the programme in the daily interactions?
5. Have you noticed any difference in impact on the students between this programme and others they have attended?

g) Concluding Questions

6. Is there anything you would like to add that I might have missed or not covered?
7. Have you any questions / queries for me at this stage?

7.4 Appendix 2B

Interview Schedule – Programme Facilitators (T1)

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a ‘guided’ conversation. Initial areas to cover are presented under the higher level research questions and will include:

- a) *The experience of those involved in the programme.*
 1. What has been your role in the design of the programme?
 2. Do you have experience in designing/ delivering similar programmes to a similar population?
 3. What are your expectations regarding the role you will play in the delivery?
- b) *The impact, if any, of an SfD programme on the psychological well-being of offenders.*
- c) *The impact, if any, of an SfD programmes on the three core psychological needs associated with Self-Determination Theory?*
 4. What impact do you think this programme will have on the students who are participating?
 5. Specifically, do you feel the programme will have any impact on the psychological well-being of the students? (*Provide explanation that well-being is referring to positive states of thinking, being, behaving and feeling e.g., life satisfaction, happiness, good relationships with others and self-acceptance.*)
 6. Specifically, do you think the programme will have any impact on the student’s:
 - iv. relationship with others?;
 - v. their competence?;
 - vi. their perception of autonomy?
- d) *The offenders’ perception of the programme being facilitated in an autonomy supportive environment.*
 7. How would you describe your personal approach / style of facilitation for this programme?
 8. With regard to the potential impact on participants we have discussed, how do you think your role as a facilitator will influence these?
 9. What challenges do you think you will face as a facilitator on the programme?
- e) *What, if any, are the critical non-sporting mechanisms of the programme?*
- f) *What, if any, are the key difference between this programme and any other programmes with similar aims and objectives?*
 10. What do you feel are the critical non-sporting mechanisms that may influence the impact this programme will have on the participants?
 11. What do you feel are the unique impacts this programme will make on the students due to being sport based?
- g) *Concluding Questions*
 12. Is there anything you would like to add that I might have missed or not covered?
 13. Have you any questions / queries for me at this stage?

7.4 Appendix 2B

Interview Schedule – Programme Facilitators (T2)

Title

The Perceived Benefits of Sport on the Psychological Well-Being of Offenders

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a ‘guided’ conversation. Initial areas to cover are presented under the higher level research questions and will include:

- a) *The experience of those involved in the programme.*
 1. What has been your experience of the programme now it is completed?
 2. Has this differed from your initial expectations?
 3. How has your own role evolved throughout the programme?
- b) *The impact, if any, of an SfD programme on the psychological well-being of offenders.*
- c) *The impact, if any, of an SfD programmes on the three core psychological needs associated with Self-Determination Theory?*
 4. What impact do you feel this programme has had on the students who are participating?
 5. Specifically, do you feel the programme has had any impact on the psychological well-being of the students? (*Provide explanation that well-being is referring to positive states of thinking, being, behaving and feeling e.g., life satisfaction, happiness, good relationships with others and self-acceptance.*)
 6. Specifically do you think the programme has impacted the student’s perception of their 1) relationship with others; 2) their competence; and 3) their perception of autonomy?
- d) *The offenders’ perception of the programme being facilitated in an autonomy supportive environment.*
 7. What has been your personal approach to facilitating the programme?
 8. With regard to the impact on participants we have discussed, how do you think your role as a facilitator has influenced these?
 9. What challenges have you faced as a facilitator on the programme?
 10. How have these challenges impacted your approach and facilitative role?
- e) *What, if any, are the critical non-sporting mechanisms of the programme?*
- f) *What, if any, are the key difference between this programme and any other programmes with similar aims and objectives?*
 11. What do you feel are the critical non-sporting mechanisms that have influenced the impact this programme has had on the participants?
 12. What do you feel are the unique impacts this programme has made on the students compared with non-sporting programmes you are aware of?
- g) *Concluding Questions*
 13. Is there anything you would like to add that I might have missed or not covered?
 14. Have you any questions / queries for me at this stage?

7.5 Appendix 2C

Basic Psychological Needs Scale

Please read each of the following items carefully, thinking about how it relates to your life currently, and then indicate how true it is for you.

1	I generally feel free to express my ideas and opinions	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
2	Most days I feel a sense of accomplishment from what I do	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
3	I consider the people I regularly interact with to be my friends	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
4	I feel like I can pretty much be myself in daily interactions	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
5	I often feel very capable	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
6	People in my life care about me	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
7	I feel like I am free to decide for myself how to live my life.	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
8	People I know tell me I am good at what I do	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>
9	I get along well with people I come into contact with	Not at all true <input type="checkbox"/>	Not very true <input type="checkbox"/>	Somewhat true <input type="checkbox"/>	Completely True <input type="checkbox"/>

7.5 Appendix 2C

Sport Climate Questionnaire

The following questions contain items that are related to your experience with your instructor.

Instructors have different styles and we would like to know more about how you have felt about your experience with your instructor.

Your responses are confidential. Please be honest and open.

1	I feel that my instructors provide me choices and options.	1	2	3	4	5	6	7
		Strongly disagree			Neutral			Agree
2	I feel understood by my instructors.	1	2	3	4	5	6	7
		Strongly disagree			Neutral			Agree
3	My instructors are confident in my ability to do well in the activities.	1	2	3	4	5	6	7
		Strongly disagree			Neutral			Agree
4	My instructors encouraged me to ask questions.	1	2	3	4	5	6	7
		Strongly disagree			Neutral			Agree
5	My instructors listen to how I would like to do things.	1	2	3	4	5	6	7
		Strongly disagree			Neutral			Agree
6	My instructors try to understand how I see things before suggesting a new way to do things.	1	2	3	4	5	6	7
		Strongly disagree			Neutral			Agree

7.5 Appendix 2C

Warwick-Edinburgh Mental Wellbeing Scale

Below are some statements about feelings and thoughts.

Please tick the box that best describes your experience of each over the last two weeks.

1	I've been feeling optimistic about the future	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
2	I've been feeling useful	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
3	I've been feeling relaxed	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
4	I've been dealing with problems well	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
5	I've been thinking clearly	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
6	I've been feeling close to other people	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
7	I've been able to make up my own mind about things	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>

7.6 Appendix 3A

RESEARCH INFORMATION SHEET – Programme Participants

Title of study

The Perceived Benefits of a Sport Based Educational Programme on the Psychological Well-Being of People in Prison

Invitation to take part in a study:

You are invited to take part in a research study being conducted into the use of a sport-based well-being awareness course. This research is part of a PhD thesis in the Faculty of Life and Health Sciences at the University of Ulster. It is an independent study, funded by a scholarship from the University. Before you decide to take part, it is important that you understand what the research is for and what you will be asked to do. Please read the following information and do not hesitate to ask any questions about anything that might not be clear to you. All aspects of the study will be conducted in the English language. Thank you for taking the time to consider this invitation.

Purpose of the study

1. To reach out to people in prison and learn their current views and opinions of mental illness.
2. To promote awareness of current mental health issues.
3. To help tackle barriers that keep people in prison from seeking help that they need.
4. To apply research and reveal how it can help people in prison.
5. The training session aims to improve mental fitness by promoting resilience, positive mental health, mindfulness and overall wellbeing by using a strengths-based approach (State of Mind, 2015).

Background to the study

This study has been reviewed by the Sport and Exercise Science Research Institute (SESRI) Research and Ethics Committee, as well as The Office for Research Ethics Committees NI (ORECNI) to ensure that all elements of the research programme are conducted appropriately and adhere to the highest ethical standards.

Why have you been chosen for this study?

You have been chosen for the study because you are taking part in pilot delivery of the State of Mind programme within HMP Risley.

Do you have to take part in the study?

Taking part in the study is voluntary and under no circumstances should you feel like you have to take part. You can participate fully in the State of Mind programme without participating in the research study. If you have any questions about the research please ask your sentence manager, and if they cannot answer, a member of the research team will do so. We are also happy to sit down and talk through all the information in person with you to make sure you are happy with everything. We can do this as a group, or in a one to one meeting if you would rather.

If you do decide that you would like to take part in this study, you will be asked to sign a consent form and given this information sheet to keep. As before, if you have any questions about the consent form or would like a member of the research team to talk it through with you, this will be arranged.

Should you choose to take part, you can also change your mind at any time and withdraw from the study without giving me a reason. On your withdrawal from the study, all identifiable information and records relating to you will be destroyed. Once data has been anonymised, it will be impossible to identify the origin and cannot be destroyed.

If you choose to take part in the research

If you decide to participate in the research, you will be invited to participate in interviews and complete a questionnaire on three separate occasions:

5. Before the programme starts

6. At the end of the programme
7. Three months following the programme

Questionnaire completion and interviews will take place within the prison at a time which does not interrupt your other commitments. The interviews will last approx. 30 mins and I will be asking you about your experience of the programme and how you think it impacts you. With your permission I would like to audio record the interview. This audio recording will be transcribed and then stored separately and confidentially from any other files that would reveal your identity. If you would prefer the interview was not recorded, I will instead take hand-written notes. The questionnaires will be completed by hand and take and involve you reading a series of statements and then ticking appropriate boxes. These will take approx..10 mins in total. If you wish, I can assist with the completion of the questionnaires.

Are there any risks to you in taking part in the research?

There are no known or anticipated risks to you as a participant in this study. At any time during the research you are free to leave if you do not wish it to continue.

As we will be discussing well-being, you may choose to provide us with personal or sensitive information about your own experiences. This will be treated with respect and confidentiality by the research team.

It is important to know that everything you tell us will be treated as confidential, in-line with the confidentiality details set-out below. An exception to this rule would be any information which specifically tells us that either yourself or someone else is in danger of being hurt or harmed. In this instance, the research team would have a duty of care to report this to the relevant care authorities.

Benefits of the research

As a researcher I am very interested in hearing about your views on a range of issues around sport, well-being and prisons. I also hope that you will find the opportunity to share your views, and think about how the programme is impacting you, to be a positive experience. In overall terms it is hoped that the final report will make some positive contribution to a better understanding of sport and well-being within prisons.

Confidentiality

All information made available to the research team will be held securely and in confidence. All personal identifiers will be removed prior to publication as required by the Data Protection Act. The information you provide is confidential, and only anonymised quotes will be used. If you request confidentiality, beyond anonymised quotes, information you provide will be treated only as a source of background information, alongside literature-based research and interviews with others. You can request a copy of the interview transcript if you wish. The Freedom of Information Act ensures that you have access to certain non-personal or generalised data. All electronic data, which will be kept for ten years, will be stored during the research on a computer at the University of Ulster which is password secured. All printed materials, such as consent forms, will be stored securely in a locked filing cabinet at the University of Ulster. Anything that you tell me about yourself or your experiences in a focus group will be kept confidential.

On completion of the study

When the research programme is concluded, the information gathered will contribute to the production of both my doctoral thesis and potentially to some academic articles and conference papers. Whilst the thesis, articles and papers will be publicly available documents, the outlined approach to confidentiality and anonymity will remain in place. In accordance with the University of Ulster's 'Code of Practice for Professional Integrity in the Conduct of Research', all the research data generated through the research programme will be kept for a period of 10 years after the completion of the study.

What if something goes wrong?

It is highly unlikely that anything will go wrong in this type of study. However, should this be the case, you can contact the Chief Investigator for this study, Dr. Gavin Breslin. The contact details are set out at the end of this document. Should you wish for any reason to contact a member of Ulster University who is not part of the research team, regarding queries or a complaint, details for Prof Eric Wallace are set out below, and you will also be provided with a stamped address envelope to enable communication without using phone or email if preferred.

Name	Telephone	Email
Prof Eric Wallace, Director of the Sport and Exercise Research Institute (SESRI)	+44 28 90366535	es.wallace@ulster.ac.uk

Contact details

If you have any queries about this research please contact: Ulster Sports Academy, University of Ulster, Jordanstown Campus, Shore Road, Newtownabbey, Co. Antrim, BT37 0QB

Name	Telephone	Email
Dr Gavin Breslin (Chief Investigator)	+44 28 90368478	g.breslin1@ulster.ac.uk
David Woods	0752 88 787 88	woods-d3@email.ulster.ac.uk

7.7 Appendix 3B



NAME: _____

DATE: _____

1) AGE: _____

2) OFFENCE COMMITTED (PLEASE TICK ONE):

- | | | | | | |
|---|-------------------------------|--------------------------|---|-------------------|--------------------------|
| 1 | VIOLENCE AGAINST THE PERSON | <input type="checkbox"/> | 6 | FRAUD & FORGERY | <input type="checkbox"/> |
| 2 | SEXUAL OFFENCES | <input type="checkbox"/> | 7 | DRUG OFFENCES | <input type="checkbox"/> |
| 3 | ROBBERY | <input type="checkbox"/> | 8 | MOTORING OFFENCES | <input type="checkbox"/> |
| 4 | BURGLARY | <input type="checkbox"/> | 9 | OTHER OFFENCES | <input type="checkbox"/> |
| 5 | THEFT & HANDLING STOLEN GOODS | <input type="checkbox"/> | | | |

3) LENGTH OF SENTENCE: _____

4) TIME SERVED: _____

Below are some statements about feelings and thoughts.

Please **tick one box** that best describes your experience of each over the last two weeks.

1	I've been feeling optimistic about the future	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
2	I've been feeling useful	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
3	I've been feeling relaxed	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
4	I've been dealing with problems well	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
5	I've been thinking clearly	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
6	I've been feeling close to other people	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>
7	I've been able to make up my own mind about things	None of the time <input type="checkbox"/>	Hardly Ever <input type="checkbox"/>	Some of the time <input type="checkbox"/>	Often <input type="checkbox"/>	All of the time <input type="checkbox"/>

Please respond to each item by **marking one box per row.**

1	I tend to bounce back quickly after hard times	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
2	I have a hard time making it through stressful events.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
3	It does not take me long to recover from a stressful event.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
4	It is hard for me to snap back when something bad happens.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
5	I usually come through difficult times with little trouble.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
6	I tend to take a long time to get over set-backs in my life.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>

Instructions: For each of statements 1– 6 below, respond by **ticking one box only**.

Mental health problems here refer, for example, to conditions for which an individual would be seen by healthcare staff.

1	Most people with mental health problems want to have paid employment.	Disagree Strongly <input type="checkbox"/>	Disagree Slightly <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree Slightly <input type="checkbox"/>	Agree Strongly <input type="checkbox"/>	Don't Know <input type="checkbox"/>
2	If a friend had a mental health problem, I know what advice to give them to get professional help.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
3	Medication can be an effective treatment for people with mental health problems.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
4	Psychotherapy (eg counseling or talking therapy) can be an effective treatment for people with mental health problems.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
5	People with severe mental health problems can fully recover.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
6	Most people with mental health problems go to a healthcare professional to get help.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>

Instructions: For items 7-12, say whether you think each condition is a type of mental illness by **ticking one box only**.

7	Depression	Disagree Strongly <input type="checkbox"/>	Disagree Slightly <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree Slightly <input type="checkbox"/>	Agree Strongly <input type="checkbox"/>	Don't Know <input type="checkbox"/>
8	Stress	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
9	Schizophrenia	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
10	Bipolar disorder (manic depression)	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
11	Drug addiction	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
12	Grief	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>

The following questions ask about your experiences and views in relation to people who have mental health problems (for example, people seen by healthcare staff).

For each of questions 1– 4, please respond by **ticking one box only**.

1	Are you currently living with, or have you ever lived with, someone with a mental health problem?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't Know <input type="checkbox"/>
2	Are you currently working with, or have you ever worked with, someone with a mental health problem?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't Know <input type="checkbox"/>
3	Do you currently have, or have you ever had, a neighbour with a mental health problem?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't Know <input type="checkbox"/>
4	Do you currently have, or have you ever had, a close friend with a mental health problem?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't Know <input type="checkbox"/>

For each of the questions 5–8, please respond by **ticking one box only**.

5	In the future, I would be willing to live with someone with a mental health problem.	Disagree Strongly <input type="checkbox"/>	Disagree Slightly <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree Slightly <input type="checkbox"/>	Agree Strongly <input type="checkbox"/>	Don't Know <input type="checkbox"/>
6	In the future, I would be willing to work with someone with a mental health problem.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
7	S In the future, I would be willing to live nearby to someone with a mental health problem.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>
8	In the future, I would be willing to continue a relationship with a friend who developed a mental health problem.	Strongly Disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>	Don't Know <input type="checkbox"/>

END OF QUESTIONNAIRE

THANK YOU

7.8 Appendix 3C

Interview Schedule – State of Mind Sport Participants

Title

The Perceived Benefits of a Sport Based Educational Programme on the Psychological Well-Being of People in Prison

Research questions

The list of research questions is not at this stage exhaustive as it will be important to let new ideas emerge inductively from the interview experience. An essential element of the semi-structured interviews is for the researcher to ensure a degree of informality wherein the interview can be undertaken as a ‘guided’ conversation. Initial areas to cover are presented under the higher level research questions and will include:

Interview Questions:

1. What were your expectations of the training session?
2. Were these expectations fulfilled? Why or why not?
3. Did the training add to your knowledge?
4. Did the status of the course facilitators (ex-professional rugby league players) impact your experience of the training session?
5. Do you participate in sport within prison, and if so do you feel it has any impact on your psychological well-being?
6. Can you think of any information you would have liked to be incorporated in the training?
7. Do you have any other comments regarding the training session, or mental health in general?

