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Individual Career Management

An enhanced supported employment intervention for people with common mental illness

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Individual Career Management

An enhanced supported employment
intervention for people with common mental
illness

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PhD in Health Service and Population Research

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Abstract

Individual Career Management (ICM) is an enhanced supported employment intervention for people with common mental illness. This thesis describes a randomised controlled trial (RCT), called the CAREER Study, which evaluated the effectiveness and cost-effectiveness of the ICM intervention.

ICM had been developed pragmatically in an NHS mental health trust in South London so existing service materials were used to create a written description of the intervention that could be used as the basis of a treatment manual. A semi-systematic review of the supported employment literature was undertaken to inform the design of the CAREER study methods and a further systematic review identified studies to inform the design of the economic evaluation.

The CAREER Study took place in an Improving Access to Psychological Therapies (IAPT) service in the London Borough of Southwark between October 2011 and March 2014. Two-hundred and sixty one participants entered the study and were randomised to receive either the ICM intervention in addition to treatment as usual (TAU), or TAU only. Assessments occurred pre-randomisation and at 6 months follow-up. The primary outcome was competitive employment. Secondary outcomes included length of competitive employment, job satisfaction, absenteeism, presenteeism, occupational activity, return-to-work self-efficacy, career search efficacy, self-esteem, anxiety, depression, social functioning and health-related quality of life. Regression analyses were undertaken to estimate the main effect of group on all outcomes.

The economic evaluation took a societal perspective and resource use data was collected including hospital, community health, social care and employment services, and medication. Productivity losses as a result of sickness absence were also calculated. A cost-utility analysis using Quality Adjusted Life Years (QALYs) as the main outcome was conducted.

Intention-to-treat analysis revealed that the ICM intervention was not effective in improving competitive employment and was not cost-effective in terms of QALYs. Significant effects were found for several secondary outcomes, including occupational activity, return-to-work self-efficacy, career search efficacy, self-esteem, and depression, indicating that the intervention may be useful in improving the level of 'job readiness' for this client group.

The key findings, strengths and limitations of the CAREER study are discussed in the final chapter of this thesis and suggestions for further research, policy and practice are presented.

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Abbreviations

ACT	Assertive Community Treatment
A&E	Accident and Emergency
ANCOVA	Analysis of Covariance
ANOVA	Analysis of Variance
AUS	Alcohol Use Scale
BAME	Black, Asian and Minority Ethnic
BPRS	Brief Psychiatric Rating Scale
CANS	Camberwell Assessment of Needs Scale
CAREER	CAReer management to improve Education Employment and Retention
CBT	Cognitive Behavioural Therapy
CEAC	Cost Effectiveness Acceptability Curve
CEIAG	Career Education, Information Advice and Guidance
CI	Confidence Interval
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CMHT	Community Mental Health Team
CMP	Condition Management Programme
CPN	Community Psychiatric Nurse
CSRI	Client Service Receipt Inventory
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders – 4 th revision
DWP	Department for Work and Pensions
DUS	Drug Use Scale
EI	Early Intervention

EMBASE	Excerpta Medica dataBASE
EQ-5D	EuroQol five dimensions
EVR	Enhanced Vocational Rehabilitation
GAF	Global Assessment of Functioning
GP	General Practitioner
GSDS	General Symptom Distress Scale
HADS	Hospital Anxiety and Depression Scale
IAPT	Improving Access to Psychological Therapies
ICD-10	International Statistical Classification of Diseases – 10 th revision
ICER	Incremental Cost Effectiveness Ratio
ICM	Individual Career Management
IJSS	Indiana Job Satisfaction Scale
IoPPN	Institute of Psychiatry, Psychology and Neuroscience
IPS	Individual Placement and Support
IPT	Interpersonal Therapy
LQoLP	Lancashire Quality of Life Profile
MANSA	Manchester Short Assessment of Quality of Life
MEDLINE	Medical Literature Analysis and Retrieval System Online
MeSH	Medical Subject Headings
MI	Motivational Interviewing
NHS	National Health Service
NICE	National Institute of Health and Clinical Excellence
PANSS	Positive and Negative Syndrome Scale
PHQ-9	Patient Health Questionnaire
PSS	Personal Social Services

PsycINFO	Psychological abstracts database
PsycLIT	CD Rom version of PsycINFO
QALY	Quality Adjusted Life Year
QOLI	Quality of Life Inventory
QOLS	Quality of Life Scale
RCT	Randomised Controlled Trial
SLaM	South London and Maudsley NHS Foundation Trust
S.D.	Standard Deviation
SOFAS	Social and Occupational Functioning Assessment Scale
SPSS	Statistical Package for Social Sciences
SRC	Statistically Reliable Change
STEP	Southwark Team for Early Psychosis
SE	Supported Employment
TAU	Treatment As Usual
UK	United Kingdom
USA	United States of America
WAIS	Wechsler Adult Intelligence Scale
WHO	World Health Organisation

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Acknowledgements

This thesis is the result of a 'labour of love' which started in 2004 when I was a vocational specialist helping young people with first episode psychosis into employment. I was struck by the inequality that exists in our society, where people with mental health conditions are disadvantaged in the job market and at unnecessary risk of poverty and social exclusion. A lot has changed in our society since then, and effective employment services have been developed, but we are still a way off from solving the problem. I hope that this thesis can contribute in some way to the evidence base for 'what works' in terms of helping people with mental health conditions into employment.

Undertaking a PhD whilst being the manager of a mental health employment service in the NHS has been challenging, especially during recent years since public funding cuts and unprecedented change in the NHS have created a somewhat unstable working environment. In addition, since starting the PhD in 2010 I have undergone some significant changes in my personal life – including getting married, having a child (my daughter is now 4 ½!), moving house three times, and sadly losing my father to an incurable lung disease.

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To Annabelle, my sunshine.

1. Introduction

1.1. Introduction to the thesis

This thesis is about the evaluation of a new enhanced model of supported employment called Individual Career Management (ICM), designed to help people with common mental illness into work. The predominant model of supported employment for people with severe mental illness, Individual Placement and Support (IPS), has been evaluated extensively worldwide and has been shown to significantly improve employment rates in comparison to traditional methods of vocational rehabilitation. The effectiveness of IPS for people with common mental illness has never been evaluated before, nor has IPS been previously adapted for this client group.

The background areas of supported employment and common mental illness are briefly introduced now.

1.1.1. Supported employment

Supported employment was first developed in the USA in the 1980's (Bond et al, 1997), and was primarily designed for people with severe disabilities and long term health conditions as an alternative to the traditional sheltered workshop model of employment (Rusch & Hughes, 1989; Bond et al 1997). Until the last three decades, a common shared belief amongst health service policy decision-makers was that people with severe disabilities and mental health problems were unemployable in the competitive job market (Rusch & Hughes, 1989); this belief has since been challenged with changes in legislation such as the UK Disability Discrimination Act 1995 and the subsequent Equality Act 2010.

The fundamental idea of supported employment is that everyone has the right to work if they want to, regardless of the severity of their disability or health condition, and that support should be provided where necessary to ensure that people with disabilities and health conditions have access to opportunities in the competitive job market. The IPS model emerged from a pilot study which demonstrated that people with severe disabilities can work in competitive employment with the support of a job coach (Wehman, 1986). The model has

been refined over the last 30 years and numerous controlled studies have demonstrated effectiveness (Modini et al, 2016), however IPS is still not implemented as standard practice, especially in the UK where implementation has been challenging due to lack of resources and societal attitudes (Boardman & Rinaldi, 2013).

1.1.2. Common mental illness

The term 'common mental illness' refers to depression and anxiety disorders in adults aged 18 years and older (NCCMH, 2011). It is estimated that over 1.24 million people in the UK have depression and over 2.28 million have anxiety disorders (McCrone et al, 2008). Depression is a relatively common illness that often goes undetected and is characterised by a loss of interest or enjoyment in ordinary things or experiences, low mood, and a range of other associated symptoms (NCCMH, 2011). In the UK, it appears to affect slightly more women (2.8%) than men (2.3%), and can affect people at any age but is most common for people aged 35-59 (Singleton et al, 2001). In many cases there is an inter-relationship between depression and physical health problems.

Approximately 5.4% of the UK population suffer from anxiety disorders which include generalised anxiety disorder, agoraphobia, social phobia, panic disorder and obsessive compulsive disorder. Anxiety disorders appear to be most common in people aged 45-54 but can affect all age groups, and again more women than men (McCrone et al, 2008). Although there are links between common mental illness and some socioeconomic factors (NCCMH, 2011), depression and anxiety disorders can affect anyone.

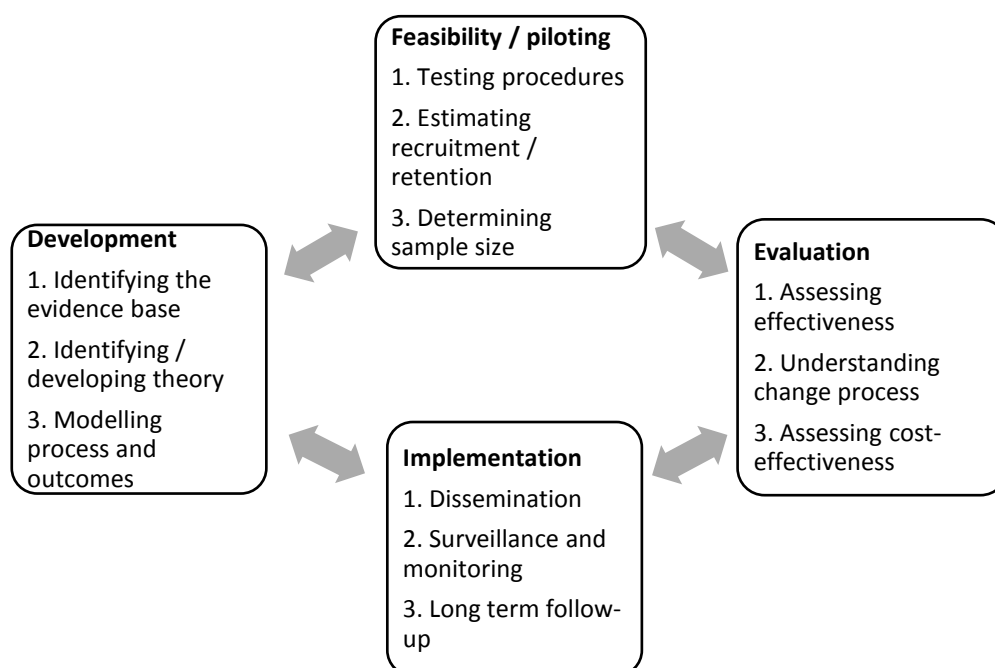
A high proportion of people with common mental illness in the UK are unemployed, however unlike severe mental illness, there appear to be no specific interventions designed to help this population into competitive employment.

1.2. Scientific framework of the thesis

ICM is a complex intervention, designed to support people with common mental illness into employment. According to the Medical Research Council, a complex

intervention is an intervention with several interacting components, such as a range of outcomes or variability in the target population (Craig et al., 2010). The implementation of a complex intervention is often systematic and involves the stages of development, piloting, evaluation, and implementation. However the process is not always linear, and can often follow a cyclical sequence as shown in Figure 1.1 below.

Figure 1.1 Key elements of development & evaluation process (Craig et al, 2010)



1.2.1. Development

The development of the ICM intervention was pragmatic and took place over a period of five years from 2004 to 2009 at the South London and Maudsley NHS Foundation Trust (SLaM) in South London. It began when a new employment adviser role was created within the Southwark Team for Early Psychosis (STEP), an early intervention service for people aged 14-35 experiencing their first episode of psychosis. The aim of the employment adviser role was to support STEP patients into paid employment, following the IPS model (further details of IPS are provided in section 2.3). However informal analysis of patient need and feedback from clinicians revealed that some patients did not benefit from the IPS approach; although many of the patients wanted to work, they had significant

psychological barriers to employment and the high unemployment rate in the local area meant that new job opportunities were scarce.

The employment adviser (who is the author of this thesis) was an occupational psychologist with background knowledge of career development theory, who started to offer career counselling to patients to help them overcome their psychological barriers to employment, in addition to the standard IPS model. Feedback from patients and clinicians was positive and this led to an investment from the local authority to develop a team of employment advisers, delivering this new model of employment support to people with a range of mental health conditions across the London Borough of Southwark. By 2008, there were seven employment advisers integrated into secondary care community mental health teams (CMHTs) in the Borough, supporting people with long-term severe mental illness such as psychotic disorders and mood disorders, and complex needs such as substance misuse and homelessness; the author became the manager of the service.

Informal evaluation and development of the employment support model continued, and new elements were introduced, based on the theories of cognitive behavioural therapy (CBT), motivational interviewing (MI), and executive coaching. Anecdotal evidence from health professionals and patients indicated that the intervention was effective in helping people with a range of mental health conditions manage their career independently, as well as improving their wellbeing and employment status. The intervention was then termed the Individual Career Management (ICM) model, and the job title of employment adviser was changed to 'career coach', for a more accurate description of the role.

In 2009, the service expanded further in size to deliver the ICM intervention to people with common mental illness in the new Improving Access to Psychological Therapies (IAPT) service in Southwark. Concurrently, it was decided by SLAM that a formal evaluation of the ICM intervention should be carried out in order to establish the level of effectiveness; although the effects of the model appeared to be positive, it was unknown whether these results would have occurred anyway, as the model had never been compared to a controlled condition. In addition, due to increasing financial pressure on the NHS, it was decided that an economic evaluation of the intervention should be carried out in order to establish whether funding the intervention was a cost-effective use of health service resources.

1.2.2. Piloting

The ICM intervention was piloted with IAPT patients for 12 months, delivered by a team of four career coaches and an employment specialist. A 'certificate in individual career management' was developed, consisting of a 10-day training course which all career coaches attended, and a competency-based assignment on completion of the course. Development of the certificate involved formalising elements of the intervention (such as the initial assessment procedure and client journey), and creating service policies and procedures to improve consistency in the delivery of the ICM intervention.

During this pilot phase, the intervention was regularly modified and updated whenever feedback from patients, career coaches or IAPT therapists indicated change was necessary. As a consequence, some elements of the ICM intervention were developed substantially. In particular, the 'workplace adjustment' part of the model (see section 3.3.3) was expanded due to the larger proportion of patients already in employment in the IAPT service, compared to patients in secondary care services where the employment rate is generally very low.

The ICM intervention had therefore been sufficiently piloted with the client group and modified as necessary, and the ICM training course, service policies and procedures had been developed in a way that would enable the intervention to be replicated consistently in an experimental setting.

1.2.3. Feasibility

It was important to establish whether a feasibility study was necessary before embarking on a full-scale randomised controlled trial (RCT). Feasibility studies can be useful for estimating the likely rates of recruitment and retention of participants in an RCT and calculating appropriate sample sizes. Referral rates to the career coaches had been stable over the 12-month pilot period, with a predicted 300 patients accessing the service per year. Recruitment of participants for a research trial was therefore expected to be achievable and it was decided that a definitive RCT would be undertaken without the need for a feasibility study. The sample size calculation was based on data that had been

collected routinely during the pilot period, and any uncertainties about the methods of the RCT would be explored through the thesis.

1.2.4. Evaluation

This thesis covers the 'evaluation' stage of the development of the ICM intervention, including the design and delivery of the RCT, and the analysis of clinical and economic data in order to assess the effectiveness and cost-effectiveness of the intervention.

1.3. Aims and objectives of the thesis

The overall aim of this thesis was to examine the effectiveness and cost-effectiveness of the ICM intervention. Underpinning this aim were five specific objectives:

- Objective 1 was to describe and manualise the ICM intervention in order for it to be delivered in an RCT.
- Objective 2 was to undertake a systematic review of the supported employment literature to inform the design of the RCT.
- Objective 3 was to develop the methodology for the RCT, including an economic evaluation.
- Objective 4 was to undertake the RCT to evaluate the effectiveness and cost-effectiveness of the ICM intervention for people with common mental illness.
- Objective 5 was to analyse the results of the RCT and make recommendations for further development and application of the ICM intervention.

1.4. Structure of the thesis

This thesis consists of seven chapters:

Chapter 2 provides a background to the topic of career management and a summary of the current evidence base in the field of supported employment.

Chapter 3 describes the ICM intervention in detail, on which the ICM manual was based (Objective 1).

Chapter 4 provides a systematic review of the literature that was undertaken to develop the methods of the RCT (Objective 2).

Chapter 5 outlines the methodology of the RCT (Objective 3).

Chapter 6 describes the clinical results of the RCT (Objective 4).

Chapter 7 describes the economic results of the RCT (Objective 4).

Chapter 8 discusses the overall evaluation of the ICM intervention and provides conclusions and implications of the thesis (Objective 5).

1.5. Student's contribution to the work

The student was fully responsible for the development and management of the RCT, in their role as principal investigator. The systematic review, methods design and application for ethical approval were all undertaken by the student under supervision from PhD supervisors.

In their dual role of principal investigator and service manager, the student was managerially responsible for all research staff and the career coaches who delivered the ICM intervention. Participant data was collected by research assistants and checked by the research administrators, under direct supervision of the student.

All collected data was manually entered onto statistical software (SPSS and STATA) by the student, and all data cleaning was carried out by the student in addition to the micro-level costing of all resources for the economic evaluation. As the student did not have previous experience of statistical analysis, advice was sought from the biostatistics advisory service at the Institute of Psychiatry, Psychology and Neuroscience (IoPPN) and an expert within the Health Service and Population Research department at the IoPPN for the identification of a suitable statistical model to use for the analysis. However the analysis of all clinical and economic results was subsequently carried out fully by the student.

2. Background

2.1. Unemployment and mental health

Employment is good for mental health (Murphy & Athanasou, 1999; Waddell & Burton, 2006; Black, 2008; van der Noordt et al., 2014). It can provide a sense of structure and meaning for an individual (Blustein, 2011), and produce opportunities for skill advancement and personal achievement (van der Noordt et al., 2014). Conversely, unemployment and economic inactivity can have a negative impact on a person's mental health (Murphy & Athanasou, 1999; Waddell & Burton, 2006; Reininghaus et al., 2008) which can have long-lasting effects, including a detrimental effect on families and communities (Blustein, 2011).

Interestingly, the correlation between unemployment and mental illness is two-directional (Burnett-Zeigler et al., 2013; Leinonen et al., 2017; van der Noordt et al., 2014). Depression can "substantially reduce a person's ability to work effectively" (NCCMH, 2011, p25) and common mental illness is associated with a higher risk of unemployment for both men and women (Butterworth et al., 2012). People with depression are more likely to be unemployed than those without a disorder (Singleton et al, 2001), and anxiety disorders have an even greater impact on employment than depression (Wittchen et al, 2000).

Mental illness can also contribute to levels of sickness absence (Frijters et al., 2014), and people with depression or anxiety are three times more likely to be absent from work than those without (Almond & Healey, 2003). Approximately 15 million days were lost through sickness absence due to common mental illness in 2013 in the UK, 12% of the total number of sick days lost (ONS, 2014). It is estimated that the cost of lost productivity due to mental illness is £26.1 billion per year, and half of this cost (£13.52 billion) is through the lost employment of people with depression or anxiety disorders (McCrone et al, 2008). In addition to the cost of lost productivity, there are also high costs associated with NHS and social care service use, estimated to be £1.7 billion for depression and £1.2 billion for anxiety (McCrone et al, 2008).

Depression is estimated to become the second most common cause of loss of disability-adjusted life years in the world by 2020 (World Bank, 1993) as it can

have a severe impact on a person's ability to perform day-to-day activities. People with depression are more likely to be dependent on welfare and benefits, more likely to have social functioning and relationship problems, and may also find it more difficult to access appropriate healthcare (NCCMH, 2011). In addition, when combined with a physical health problem, depression can increase the risk of death (Cassano & Fava, 2002; Nicholson et al 2006).

The vicious cycle of unemployment and poor mental health is therefore costly to society as well as to individuals themselves. However people with depressive conditions can find it difficult to maintain a position of employment due to the symptoms of their illness such as social withdrawal, fatigue, reduced or increased sleep, low self-esteem, loss of confidence, poor concentration, and reduced attention (NCCMH, 2011). Likewise, the symptoms of anxiety disorders can also impact on employment. For instance, people with panic disorder (especially agoraphobia) may avoid particular places or situations, people with social phobia may avoid contact with people, and people with obsessive compulsive disorder may have repetitive behaviours that they feel driven to perform, which may impact on their daily routine (NCCMH, 2011).

These multiple barriers indicate that people with common mental illness may have difficulty obtaining and maintaining employment, and without support they may risk unemployment, poverty and social exclusion.

2.2. Government initiatives

As the proportion of people with mental health conditions in employment is significantly lower than the general population, specific interventions are required to help improve the employment rate. Support is varied across the UK, however there are two key government initiatives designed to address this problem: 1) welfare-to-work programmes, and 2) the improving access to psychological therapies (IAPT) programme.

2.2.1. Welfare-to-work programmes

Welfare-to-work programmes are available to unemployed people in receipt of welfare benefit payments. The Pathways to Work employment programme was launched by the UK government's Department for Work and Pensions (DWP) in 2007. The aim of the programme was to reduce the number of incapacity benefit claimants by supporting people with health conditions into employment. Over 7% of the working age population in the UK receive incapacity benefits due to disability or ill health (National Audit Office, 2010), and approximately half of incapacity benefit claimants have a mental health condition.

Pathways to Work was delivered by Jobcentre Plus, the UK's national employment agency, in partnership with external contractors known as 'prime providers'. Attendance at the Pathways to Work programme was mandatory for all new incapacity benefit claimants and voluntary for existing claimants, and consisted of six work-focused interviews with a personal adviser, plus a medical assessment to determine benefit eligibility. Failure to participate could lead to a reduction of up to 25% in incapacity benefit payments for mandatory claimants. In addition to work-focused interviews, some claimants had the opportunity to receive support through the voluntary Condition Management Programme (CMP). The CMP was delivered by specialist practitioners and was designed to help individuals learn to manage their health condition in preparation for returning to work. The support available through the CMP could differ depending on the provider, as there was freedom in the design and delivery of the CMP to encourage innovation. Most people with mental health conditions were offered one-to-one support such as Cognitive Behavioural Therapy (CBT) or group sessions (Nice & Davidson, 2010). Qualitative evaluations of the CMP have shown that some claimants were satisfied with the support received, whereas others were not (Nice & Davidson, 2010; Barnes & Hudson, 2006).

Official statistics revealed that the rate of claimants moving into employment was just 15%, which was significantly below the targets set in the Pathways to Work contracts, and thus the programme was deemed a failure in terms of effectiveness and cost-effectiveness (National Audit Office, 2010). Client feedback indicated that some providers lacked the knowledge and expertise to design effective interventions that meet the needs of people with multiple barriers to work (Nice & Davidson, 2010)

In 2011 the DWP launched a replacement welfare-to-work initiative called 'The Work Programme' for all claimants of unemployment and incapacity benefits. The Work Programme had the opportunity to improve in the areas where Pathways to Work had failed, however contractors are paid according to job outcomes in a 'payment-by-results' model. Whilst this payment method could encourage healthy competition between providers, there is also a significant risk of "cherry-picking and parking" (Struyven & Steurs, 2005), a process in which the most job ready claimants are supported to find work and those with the most complex barriers receive very little or no support.

The Work Programme has received widespread criticism from leading charities such as Mind, who calculated that only 5% of people with mental health conditions had been supported to enter employment, compared to 24% of people without mental health conditions (Mind, 2014). They suggest the failure of the Work Programme has been due to a number of design flaws: 1) employment advisers have a lack of understanding about mental health problems, 2) support provided is generic and not tailored to the individual, 3) too much focus is given to sanctioning benefits, and 4) there is a lack of integration with other services. A survey of over 400 people with mental health conditions found that 76% felt less able to enter employment after attending the Work Programme (Mind, 2014). Recent Work Programme statistics show that the level of job outcomes for people with disabilities is much lower than other groups of people, and the Work Programme has also been less effective in areas with high unemployment (Dar, 2016).

It has been revealed that caseload sizes of Work Programme employment advisers exceed 100 participants at any point in time due to the low-input-high-output payment-by-results methodology, so understandably, there is rare opportunity for individually tailored support. It is evident that 'cherry-picking and parking' (Struyven & Steurs, 2005) may exist under this model, and people with complex barriers to employment are unlikely to benefit from such an approach.

2.2.2. Improving access to psychological therapies (IAPT)

The UK government launched the Improving Access to Psychological Therapies (IAPT) programme in 2007, aiming to expand the availability of psychological treatment for common mental illness (Clark, 2011). The aim of the IAPT

programme was to deliver evidence-based psychological therapies for depression and anxiety disorders as recommended by the National Institute for Health and Care Excellence (NICE), including Cognitive Behavioural Therapy (CBT), Interpersonal Therapy (IPT), and other low intensity therapies such as guided self-help, behavioural activation, psycho-education, and structured physical activity. The initial target of the programme was to offer treatment to at least 15% of the population with depression and/or anxiety disorders (Clark, 2011), and it was estimated that the programme would 'pay for itself' by reducing public costs and increasing revenues, mainly through patients moving into recovery, returning to work, and increasing their productivity (Layard et al., 2007). Although the IAPT programme was not targeted specifically at people with employment problems, it was assumed that many of the patients would be unemployed or experiencing difficulty at work, and an assumption was made that patients would be four percentage points more likely to be in employment over the two years following treatment (Layard et al., 2007).

An initial evaluation of the two IAPT pilot sites (Newham and Doncaster) found that approximately 55% of patients were clinically 'recovered' after receiving at least two sessions of treatment, and 5% achieved an improvement in employment status compared to their pre-treatment status (Clark, 2011). The success of this pilot led to a national roll-out programme of IAPT in 2008. It was widely recognised that the 5% employment improvement rate could be increased, so the IAPT national implementation plan recommended that all patients should have access to an employment advice service if lack of employment or danger of losing employment was affecting their mental health (Department of Health, 2008).

Although the four-year action plan for expansion of the IAPT programme stated that employment advice should be delivered as a core part of psychological therapy services and was a vital element of the roll-out (Department of Health, 2011), no further guidance was given in the plan or any of the associated documents (HM Government & Department of Health, 2011) about how the employment advice should be delivered.

A basic cost benefit calculation by Working for Wellness (2010) illustrated that there would be a potential return on investment for the cost of an employment adviser, on the assumption that the employment adviser could support 40-70 IAPT service users to maintain employment for a year. In this service model, it

was suggested that each service user had a 40 minute introductory session followed by eight 30-minute sessions with the employment adviser, resulting in an annual caseload size of 250 service users (Working for Wellness, 2010).

However, none of the five London sites in the later Working for Wellness Employment Support Service evaluation (2011) followed this model; the average annual caseload size was 48 service users per employment adviser and each site used their own individual model of service delivery. For example, one site had three full-time employment advisers allocated to the IAPT service in addition to two hours support per month from a job retention worker, whereas another site had one full-time employment adviser and three full-time job retention workers. In both these sites, employment advisers primarily supported unemployed service users, whilst job retention workers supported those that were in employment. In the other three sites employment advisers or vocational specialists provided support to unemployed and employed service users.

Although both reports (Working for Wellness 2010; Working for Wellness 2011) provided a cost saving calculation for the employment intervention, neither of them included a comparison condition and the results were based on estimated values as opposed to observed data. In addition, although five different models of delivery were presented in the Working for Wellness (2011) evaluation, no comparisons were made between them in terms of effectiveness or cost-effectiveness.

As no controlled evaluations of IAPT employment support have ever been conducted, no conclusions have yet been drawn about the most cost-effective service delivery model of employment support within an IAPT service. This demonstrates that the evidence base for supporting people with common mental illness into employment is extremely limited. In contrast, there is an extensive and rapidly developing evidence base for supporting people with severe mental illness into employment; this field is commonly referred to as 'supported employment'.

2.3. Supported employment

Traditional methods of vocational rehabilitation for people with mental illness focused on pre-vocational training and extensive preparation before entering competitive employment, sometimes named the 'train-then-place' model (Modini

et al, 2016). Supported employment takes an alternative 'place-then-train' approach, where an individual with mental illness is rapidly placed in competitive employment, and is provided with support in order to maintain their job. The most evidence-based model of supported employment for people with severe mental illness is called Individual Placement and Support (IPS).

2.3.1. Individual Placement and Support (IPS)

IPS was developed in the early 1990's in New Hampshire, in the USA, and the eight principles of IPS were initially described as follows (Becker & Drake, 1994):

1. Rehabilitation is an integral component of mental health treatment.
2. The goal of IPS is competitive employment in integrated work settings.
3. People with severe mental illness can obtain jobs rapidly.
4. Vocational assessment is continuous.
5. Follow-along supports are often necessary to sustain employment.
6. Services are based on clients' preferences and choices.
7. Services are usually provided in the community.
8. A team approach promotes integrated services.

IPS is delivered by teams of employment specialists, integrated into community mental health settings. Each employment specialist manages a caseload of approximately 20-25 patients and is responsible for generating referrals across one or two mental health treatment teams. In addition to working alongside clinical staff within the treatment team, employment specialists also work in partnership with external agencies such as training providers and job centres, and carry out extensive employer engagement work.

The primary focus of IPS is to help individuals move into competitive employment: a job that pays at least the national minimum wage and is not set aside for people with mental health conditions or disabilities. This differs from the focus of traditional methods of vocational rehabilitation, such as pre-vocational training, clubhouses and sheltered workshops, which help individuals to move into unpaid employment or 'permitted work' (a job paying a minimal sum such as £20 per week where an individual is entitled to continue receiving welfare benefits) in a supported setting before exploring the competitive job market.

The main benefits of competitive employment are that it can reduce the risk of poverty and increase social inclusion for people with mental health conditions and disabilities. Unpaid employment or permitted work can delay an individual's return to the competitive job market, as well as reducing an individual's expectations and reinforcing dependency on services (Becker & Drake, 1994).

In addition to a focus on competitive employment, a key factor of the IPS model is rapid job placement. The foundation of this approach is that pre-employment training does not equip individuals with the necessary skills for overcoming real-world employment challenges, whereas placement in a real-world job with simultaneous training and support can enable individuals to tackle these challenges immediately.

Rapid job search in IPS can be undertaken by the individual or the employment specialist and can include looking for jobs in the open market as well as the 'hidden market', which is a term used to describe jobs that are not advertised or vacancies that do not yet exist. An employment specialist can navigate the hidden job market by contacting employers on the patients' behalf; this is referred to as 'systematic job development' and it requires permission of the patient for their mental illness to be disclosed to an employer, as well as the employment specialist to be highly skilled in selling and negotiating techniques. The recent success of systematic job development has led to it becoming an integral part of the IPS model (Carlson et al., 2008).

Follow-along in-work support for the patient and employer is an essential part of IPS due to the place-then-train approach, so the employment specialist will often make contact with an employer even if the patient has obtained the job independently (Becker & Drake, 1994). Consequently, disclosure of mental illness to an employer is therefore preferred to non-disclosure in IPS, although this is not explicitly mentioned in the IPS model.

There is growing evidence that IPS significantly improves the employment rate of people with severe mental health conditions (Kinoshita et al, 2013, Marshall et al, 2014). Several Randomised Controlled Trials (RCTs) have now been conducted worldwide, and the results indicate that IPS participants generally work more hours per week, more weeks per year, have higher wages, and fewer days to the first competitive job than controls (Marshall et al, 2014).

However some of the studies have been poor quality (Kinoshita et al, 2013) and generalisation of results may be limited to people with severe mental illness, non-

ethnic minorities, and may also be limited to areas with a strong local labour market.

2.3.2. IPS in IAPT services

IPS has never been formally tested in an IAPT setting, however the employment adviser positions that were integrated into IAPT services in the Working for Wellness pilot (Working for Wellness, 2011) were loosely based on the IPS model. Several of the principles of IPS are relevant to IAPT employment support: competitive employment is the primary goal, eligibility is based on client choice, employment support is integrated within the therapy service, job search is guided by individual preferences, and personalised benefits advice is provided. However the other three principles may be less important for people with common mental illness in an IAPT service setting: rapid job search, systematic job development, and time-unlimited support.

2.3.2.1. Rapid job search

Although employment rates in US trials of IPS are high, the average job tenure is less than six months (Becker et al., 2007) and a longitudinal study found that only 35% of IPS participants were still in employment after 8-12 years (Becker et al., 2007). This low level of job tenure suggests that IPS participants may leave employment prematurely and one explanation could be a poor individual-job fit: the rapid job search element of IPS could potentially encourage participants to apply for opportunities based on availability or ease of access, rather than suitability. The majority of jobs obtained by IPS participants are entry-level positions, such as office admin, cleaning, factory work, or catering, irrespective of their level of skill or qualification, as these jobs are usually more widely available and easily accessible than higher level positions. Whilst this can yield an earlier return to employment, an inadequate skills match can result in low satisfaction and poor job retention.

Some participants may be able to transition from an entry-level position to a higher level position, however those with limited educational qualifications (e.g. Maths and English) can be significantly disadvantaged in the UK job market and

can have restricted career prospects. As a consequence, they may become stuck in a position of employment with diminished hope for the future, which can considerably affect their wellbeing. An alternative strategy for successful career development may be to delay the return to employment in order to pursue the necessary educational qualifications (Rinaldi et al, 2010; Brown et al., 2012).

Equally, people with higher level qualifications and experience in senior occupational roles may not wish to pursue an entry-level position and may require more time to plan their next career move before job searching. IAPT patients are a diverse population which can include people that are in employment, those that have just lost their job, or those that have been unemployed for a long time. Unlike patients with severe mental illness who typically have limited work experience due to the early onset of their illness, many IAPT patients have had successful careers as common mental illness can occur at a later stage in life; the level of academic qualifications is also high for IAPT patients, with approximately half having a degree (Hepgul et al, 2016). Many such people may wish to embark on a career change, which may involve re-training in a profession or gaining experience in a new field, so rapid job search may be less useful to their career development than pursuing an educational course or volunteering position. The term 'rapid career development' may therefore be a more appropriate term for the IAPT client group than 'rapid job search'.

2.3.2.2. Systematic job development

The preference for systematic job development in IPS indicates an assumption that people with severe mental health illness are unable to attain employment in the open market or they require an employment specialist to find the job on their behalf. Logically, an employment specialist with expert knowledge of the labour market and skills in job acquisition may be able to secure a position more rapidly than the service user, resulting in a speedier return to employment. However, this diminishes the opportunity for the service user to acquire these skills themselves.

According to the social recovery model of mental health adopted in the UK, the process of recovery involves the patient taking control of their illness and their life. This includes becoming independent, making their own decisions, taking risks, developing coping strategies, identifying sources of support, learning how

to self-help and gaining a sense of hope for the future. These elements oppose the traditional medical model of mental health, in which decisions are made by the medical or clinical 'expert' and dependency on mental health services is endorsed. The use of systematic job development in IPS is somewhat incongruous with the social recovery model of mental health as it encourages dependency on the employment specialist and does not equip the patient with essential skills for job searching in the future. In a longitudinal study of IPS, 47% of participants were still in receipt of employment support after 8-12 years (Becker et al., 2007), which indicates a high level of long-term service dependency post intervention. Qualitative analysis also revealed that participants felt long-term IPS support was essential to help them maintain in employment and transition from one job to another (Becker et al., 2007).

Whilst some people with severe mental illness may be greatly dependent on mental health services (although this is likely to be a minority), people with common mental illness in IAPT are much less dependent on services; for many, contact with an IAPT service is the first type of treatment they have received for their illness. In order to maintain their independence, they should be encouraged to take full control of their job search, learning how to apply for work successfully, without becoming dependent on the IAPT service to place them in a job. Although systematic job development could be useful for some people in some cases, it should only be undertaken as a last resort, for instance if the individual is repeatedly unsuccessful in their job search and is unable to obtain employment on their own. A more useful intervention could be for the employment specialist to teach the individual how to develop their networking skills, as over 80% of jobs are found through networking, and some professions now recruit predominantly through social media applications such as Facebook, Twitter and Linked In; this could be termed 'systematic networking'.

Another reason why systematic job development may be less appropriate for the IAPT population is that it requires disclosure of mental illness in employment. The UK Equality Act 2010 states that an individual has the right to decide whether or not to disclose their mental illness to an employer, and disclosure decisions can be based on numerous variables, including the individual's beliefs about stigma and discrimination, symptoms of their illness (visible or not visible), requirements for adjustments to be made at work, type of job or organisation, level of emotional support available, and their familiarity with legislation (Brohan

et al., 2012). Disclosure is also an extremely personal decision which people with mental illness prefer to have control over (Brohan et al., 2014).

Although discrimination against people with mental illness in employment is unlawful in the UK, many people believe they will be treated unfavourably in the hiring process (Brohan et al., 2014), and most would prefer not to disclose, particularly those with no visible symptoms (Banks, 2006). Even for those that choose to disclose their mental illness, there is a preference for deferring disclosure until they have established a level of trust with the employer (Brohan et al., 2014). Self-stigma can increase an individual's reluctance for disclosure and is more prevalent with people who are male or from an ethnic minority group. Interestingly, the proportion of ethnic minority participants in IPS studies is higher in the UK than the US, therefore a lower rate of disclosure and consequential inability to benefit from systematic job development could partly explain the lower rate of employment.

2.3.2.3. Time-unlimited support

Support for the individual and their employer continues for as long as necessary in IPS, which could last beyond a year. This usually corresponds with the length of mental health treatment, as people with severe mental illness are often in receipt of services for several years and IPS is part of their treatment package. However the length of treatment is much shorter in IAPT and service users may be discharged after a few months if they achieve 'recovery'. An important question to ask is whether IAPT service users should continue having access to IPS after they have been discharged from IAPT treatment, as it could be argued that they no longer have a mental health condition and the local health service commissioners would likely prefer to offer the IPS resource to new patients in need of treatment.

To answer this question, a cost-benefit analysis of providing IPS to discharged patients is probably required, and the decision is likely to be made at a local level depending on the resources available. However it is plausible that there would need to be some form of time limit on IPS services for IAPT service users, so the principle of 'time-unlimited support' cannot strictly be followed. It may be more reasonable to say that support is time-unlimited up until the point of discharge

from IAPT, at which point a local decision is made about continued access to support.

This issue has relevance to the effectiveness of IPS, which is measured solely by rates of competitive employment; if service users are discharged after a few months this may not allow sufficient time for them to enter employment, and so alternative outcomes (such as 'job readiness') may need to be measured in order to accurately assess effectiveness.

2.3.3. Effectiveness of IPS in the UK

Evidence for the effectiveness of IPS is less clear in the UK than the USA. In the first RCT of IPS in the UK, Howard et al (2010) found no significant difference in employment rate after 12 months, and even though the difference was significant at 24 months the rate was only 22% compared to 11% for the control group (Heslin et al., 2011); this was substantially lower than the rates reported in US-based studies (50-60%). Interestingly, the Howard et al (2010) study was categorised as an outlier and removed from analysis in a recent review (Bond et al, 2012), however similarly low rates of employment have been found in other UK studies. A naturalistic study of six IPS-based programs in the UK showed that the proportion of individuals attending employment or work placements increased by only 6.8% (from 40.8% to 47.6%) after 12 months (Schneider et al, 2009). Non-controlled studies that have reported higher IPS rates (e.g. Rinaldi 2004, Rinaldi & Perkins 2007) are subject to bias due to a lack of comparison group and per-protocol analysis.

Some authors suggest that the lower employment rates in non-US studies could be due to socio economic factors, local welfare systems, and what is referred to as the 'benefits trap' (Burns et al, 2007; Bond et al, 2012), which can reduce incentives for people to move into paid employment. Poor labour market conditions and high unemployment rates in the local area can also reduce the likelihood of transition to employment for people with health problems (Curnock et al., 2014). Burns et al (2007) found economic context to be a predictor of success in a trial of IPS, and people with severe mental illness are less likely to be employed in inner-city areas with high unemployment and deprivation (Drake et al., 1999; Becker et al., 2006).

IPS is less effective when there is low economic growth and is likely to be susceptible to macroeconomic factors (Modini et al, 2016). Given the complex and changing nature of the job market, IPS alone might not be enough to help people with common mental illness return to employment in the UK.

2.4. Careers in the 21st Century

2.4.1. The concept of career

The concept of 'career' in the 21st Century has markedly changed since the mid 20th Century. Traditionally, a career referred to a job or profession, whereas more recent definitions convey a 'journey' of work-related experiences through life, which can include periods of education, training, or voluntary work. Both definitions are still used today: Oxford Dictionaries uses the traditional meaning of *"An occupation undertaken for a significant period of a person's life and with opportunities for progress"* (www.oxforddictionaries.com), whereas Wikipedia displays the modern version: *"A career is an individual's journey through learning, work and other aspects of life"* (www.wikipedia.org).

Careers in the mid 20th Century were considered to be 'stable' (Bergmo-Prvulovic, 2014), linear (Bimrose & Hearne., 2012), and hierarchical (Chudzikowski, 2012). It was common for a person to choose a profession towards the end of their formal education and then work for one employer throughout most of their life, changing jobs only in pursuit of higher income or status. In this stable work environment, employers were generally responsible for the careers of their employees, providing a secure income, and often a retirement pension, in return for commitment to the organisation.

In contrast, careers in the 21st Century are referred to as 'boundaryless' (Arthur, 1994), 'multifaceted' (Bimrose & Hearne, 2012) and 'fluid' (Reid, 2016), and it is becoming increasingly rare to have lifelong or secure employment (Bergmo-Prvulovic, 2014, Bland & Roberts-Pittman, 2013). The psychological contract between employers and employees has changed: employers can no longer offer job security or a hierarchical career (Bezuidenhout et al., 2013) and as a result, employees are not expected to offer lifelong commitment to the organisation. People are now more likely to move to a different employer for promotion rather

than move up the 'career ladder' within one organisation (Bland and Roberts-Pittman, 2013).

Non-standard work arrangements such as part-time, unregulated, and home-based work are becoming more common, and these can often entail variable work schedules and stressful working conditions which can impact on an individual's health (Benach & Muntaner, 2007). Job insecurity can become a 'chronic stressor' that impacts on a person's health (Scott, 2004); especially in an unstable job market (Murphy & Athanasou, 1999). The recently emerged concept of 'precarious employment', which describes work with limited regulations and restricted rights for employees, is becoming more common and this is a concern due to its potential impact on the health and wellbeing of individuals (Benach & Muntaner, 2007). Although the benefits of employment are well documented, some jobs can be harmful to a person's mental health and wellbeing (van der Noordt et al., 2014). Work must have the right balance of stress and strain: enough pressure to motivate the individual, but not enough to cause them harm (Health & Safety Executive, 2005).

The transformation to this new definition of career is a direct consequence of recent changes in the employment market. Globalisation has had a major impact on the world of work (Bergmo-Prvulovic, 2014, Bland & Roberts-Pittman, 2013); high levels of competition in the worldwide trade market have led to a rapidly increasing demand for some sectors of employment, and significant decline in others. Organisational change can involve instantaneous expansion, downsizing, and relocation to alternative geographical areas across the world. Accelerating advances in information and communications technology (ICT) have also had a momentous impact on the employment market, as the efficiency of technological automation has resulted in some traditionally manual jobs becoming completely redundant. For example, the proportion of jobs in the manufacturing, mining and quarrying sector in the UK has fallen from 26% to 8% in the UK over the last 40 years (Office for National Statistics, 2016). The result of these changes in the employment market has been a rise in the number of part-time, short-term, flexible employment contracts offered across most sectors (Benach & Muntaner, 2007) and the termination of traditional career paths in times of economic instability (Simosi et al., 2015). Many workers in the 21st Century are now familiar with the likelihood of redundancy and having several job changes throughout one's lifetime is swiftly becoming the norm. As people are also living longer and the average retirement age has increased, it is possible to have a 'second act' in

a career (Chope, 2011), in which a person may re-train and move to a completely different profession or field of work.

As the definition of career has changed, the management of careers has moved from the organisation to the individual (Bergmo-Prvulovic, 2014). Individuals can 'self-negotiate' the labour market (Bimrose & Hearne, 2012), creating their own career path as an 'active agent' (Chen, 1998), moving from one job to another across different sectors and types of organisations.

2.4.2. Career management skills

Whilst individual career management can increase freedom and independence, and provide multiple opportunities for a satisfying career, it is also a complex and multifaceted task that requires essential skills such as effective decision-making, resilience and adaptability, in addition to self-motivation, confidence and self-esteem. These career management skills are examined more closely here.

2.4.2.1. Decision-making

With a vast array of positions available in the modern job market, and new opportunities being created every day, choosing the best option can be difficult. Job options are no longer limited by gender or location, and the UK Equality Act ensures that everyone has the right to work regardless of their age, ethnicity, or disability status, so people generally make career decisions based on their interests and preferences. However, individual needs and employment opportunities can change quickly in a fluctuating job market, and a person may find their 'best-fit' job is not available (Bland & Roberts-Pittman, 2013). Even those with relatively stable occupations may find the need to reframe their career goals mid-career (Brown, 2015).

People with common mental illness may have difficulty in decision-making which can impact on their ability to choose a suitable career goal. People with anxiety are more likely to engage in risk-avoidant decision-making (Maner et al, 2007), which implies that they may avoid a career decision which involves moving to a new field or profession, even if it is the best fit for their needs and circumstances.

People who worry are more likely to procrastinate and exhibit perfectionism (Stober & Joormann, 2001) which could delay their decision-making, and worry can also be exacerbated by parental criticism and expectations (Stober & Joormann, 2001), which in many cases can impact on an individual's career choices.

Depression and anxiety can also involve negative or dysfunctional thinking, which can have a significant effect on career decision-making (Saunders et al, 2000), as the individual may experience confusion and disabling thought processes which prevent them from making a career decision in a logical way (Peterson et al, 1996). The ability to make a career decision can therefore be a significant psychological barrier for people with common mental illness which reduces their capacity to manage their career independently in today's labour market.

2.4.2.2. Resilience and adaptability

As the labour market becomes more unstable, the transition between employment and unemployment is becoming more common (Blustein et al., 2011) and job search is now a fundamental part of working life for many people (Carlier et al., 2014). In order to survive, individuals need to be able to cope with multiple career transitions (Bimrose & Hearne, 2012) and the experience of job loss (Blustein et al., 2011). This requires resilience: the ability to survive stress and change; and adaptability: the ability to change (Bimrose and Hearne, 2012). A lack of career adaptability skills can make a person vulnerable if there is a change in their occupational circumstances (Ebberwein et al, 2004) however it is a skill-set that can be learned (Brown et al., 2012).

People with a high level of resilience, and 'boundaryless' attitudes are more likely to cope with an uncertain job market (Briscoe et al., 2012), however people with depression or anxiety are significantly more likely to have low levels of resilience (Connor & Davidson, 2003; Hjemdal et al, 2011) than those without these disorders, and feelings of hopelessness associated with depression can increase the likelihood of a person believing they are unable to cope with stress (Joiner et al, 2005). This implies that common mental illness may impact on a person's ability to cope with the stressful nature of career management in today's job market.

2.4.2.3. Overcoming fear

Starting a new job can involve many novel experiences, such as meeting new people and undertaking different tasks. This can cause fear and anxiety in many people, not just those with mental health conditions, although the experience of anxiety and inability to overcome the fear may be more severe for the latter. Widespread fears about employment can create significant psychological barriers for those that are unemployed.

Some people may have a fear that their job will be unpleasant or unfulfilling (Blustein et al., 2011), especially if the individual's work options have been limited, and some may worry that employment will worsen their illness due to stress or being under pressure. The less work experience a person has, the more anxious they are likely to be about employment (Himle et al., 2014).

Fear of stigma and discrimination is common amongst people with mental health conditions: in a survey of 156 service users with severe mental illness, Secker, Grove and Seeböhm (2001) found that the most significant perceived barriers to employment were stigma, discrimination and negative employer attitudes, a finding that was replicated by Marwaha and Johnson (2005). Self-stigma can also be a substantial barrier, where an individual perceives they will be treated differently due to their illness, even though there may be no discrimination against them (Corrigan et al., 2012).

People that have been long-term unemployed can be concerned about the impact of full-time employment on their ability to retain welfare benefits (Harris et al., 2014, Brohan et al., 2014). Despite recent government initiatives to improve the transition from welfare benefits to employment, it remains a complex process which can be extremely stressful for the individual, especially those that are considered vulnerable. Welfare benefit dependency can be a significant obstacle to overcome.

2.4.2.4. Confidence and self-esteem

Although these employment-related fears are often completely rational, the inability to overcome the fear can be linked to a lack of self-efficacy – the belief in oneself to succeed – and low self-esteem – confidence in one's own abilities.

Unemployed people with low levels of self-efficacy and self-esteem are less likely to perform well at interviews and obtain paid employment (Carlier et al., 2014). Low self-esteem can also contribute to difficulties with career decision-making and career planning (Bland & Roberts-Pittman, 2013; Choi et al., 2011), and it has been found that career confidence can positively predict re-employment (Koen et al, 2010).

This is of particular concern as low confidence and poor self-esteem are strongly associated with depression (Orth et al, 2008; Sowislo & Orth, 2013) and anxiety (Pyszcynski et al, 2004). People with no mental illness have the capacity to think positively and optimistically about themselves which can protect and enhance self-esteem, whereas the opposite can be true for those with depression or anxiety (Mann et al, 2004).

2.4.2.5. Self-motivation

Poor motivation can be a product of low self-esteem, and due to the dynamic nature of job searching, a lack of drive or ambition can affect a person's success in finding work. Active job seekers, who take a proactive and strategic role in job searching, are more likely to find employment than passive job seekers, who rely on job opportunities to come their way (Alverson et al., 2006; Carlier et al., 2014).

People who are disadvantaged in the labour market may have a lack of hope for the future, which can result in feelings of depression and de-motivation (Chope, 2011), conversely hope for one's future can have a positive impact on proactive career development attitudes and behaviour (Hirschi, 2013). Hope and optimism about the future is a vital component of the recovery process in mental health (Turner-Crowson & Wallcraft, 2002; Leamy et al, 2011), and can improve psychological self-sufficiency in job-seeking individuals (Hong et al, 2012).

Self-motivation is essential for career success (Snyder et al, 2002; Herzberg et al, 2011), however people with depression are more likely to experience low levels of motivation (Lejuez et al, 2001) which has been found to predict sick leave in employees (Bejerholm et al, 2017).

2.4.3. Careers advice

Strikingly, many job seekers in today's market do not possess the skills or knowledge needed for successful career navigation, and many still think of a career in the traditional sense – that it is a job for life, where career management is the responsibility of the employer, not the individual. This can especially be true for unemployed people that have been absent from the labour market for several years.

Unfortunately the career advice provided by schools, colleges and universities does not always prepare young adults for the realities of managing their career in today's job market, and there is little consistency between institutions due to guidelines allowing for local interpretation (Christie, 2016). Some careers advice services follow the traditional concept of career and are not relevant to the modern organisation of work in society (Bergmo-Prvulovic, 2014); in many cases the focus is still on helping the individual to choose an occupation, rather than developing career management skills such as resilience, adaptability and self-motivation.

Given that individual career management in the 21st Century requires a complex blend of personal skills and attributes, which may be lacking if an individual has missed out on adequate careers advice during their formal education, it presumably follows that career success is reliant on the individual taking the initiative to develop these skills themselves as an adult. As people with common mental illness may have increased difficulty in developing these skills due to the symptoms of their illness, they are at an immediate disadvantage when it comes to individual career management.

2.5. A new alternative

2.5.1. Career counselling and career coaching

In contrast to traditional careers advice, career counselling and career coaching can be effective methods in helping individuals to overcome psychological barriers to employment and develop skills in career management. It is now becoming more common for people to use career counselling or career coaching

if they are experiencing a significant job transition, such as redundancy, retirement, or a moving to a different field or organisation.

Several definitions of career counselling exist in the literature, however a useful explanation is that it involves “working with individuals to identify the meaningful life themes that can be taken into a career as part of the individual’s biography” (Reid, 2016, p14). Career counselling can help individuals to explore their needs, interests, and preferences that can help with career decision-making, and can also help people to uncover fears or anxieties they may have about employment or training. In most cases, career counselling takes a holistic view of a person’s life, and can include discussions about non-work domains such as family or hobbies.

The terms ‘career counselling’ and ‘career coaching’ are often used interchangeably; however there are subtle differences between them. By definition, career coaching is usually more goal-oriented and action focussed than career counselling, and may involve support with the acquisition of skills, such as learning how to construct a CV, or perform well in interviews, which one might not usually find in career counselling. In career coaching, the ‘coach’ assists the ‘client’ to find information themselves, rather than providing the information for the client (Zeus & Skiffington, 2000).

Some employers may offer career coaching to their employees as part of a personal development, organisational change program or outplacement service; however such career interventions are rarely available for people who are the most disenfranchised in society (Chope, 2011) such as those who are unemployed or not in education. Private career coaching services do exist, and this is in fact a growing industry, however the fees are unlikely to be affordable for someone in receipt of welfare benefits or on a low income. Where free career coaching for unemployed people does exist in some areas, it usually focusses solely on job-finding approaches (Blustein et al., 2011), and may not address psychological barriers in the way that private career coaching potentially would.

Although academic research into the effectiveness of career counselling and career coaching is still in its infancy, it has been found to be effective (Brown et al., 2003); it can decrease career decision-making difficulties and improve life satisfaction (Masdonati et al, 2009). Career coaching can also help individuals to develop resilience and career adaptability in order to navigate the complexities of the modern labour market (Bimrose & Hearne, 2012). More people are now

seeking career intervention support due to the recent economic situation (Bimrose & Hearne, 2012)

However, there appear to be no studies that have examined the effects of career coaching for people with mental illness – presumably because access to such services is limited to a small proportion of people in employment, education, or with the financial means to cover the cost of private sessions, so the uptake is low for this population. Although career coaching can potentially help an individual to develop skills in career management, career coaches are generally not trained therapists (Chung & Gfroerer, 2003), and therefore may not be skilled in helping people with mental illness to overcome psychological barriers to employment. In addition, career coaches do not usually provide welfare benefits or employment law advice – both of which might be important for someone who has been long-term unemployed and has a mental health condition under the Equality Act.

Career coaching may be part of the solution to helping people with common mental illness back to work, but it is likely to be ineffective on its own.

2.5.2. Enhanced supported employment

As discussed earlier in section 2.3.1 above, IPS appears to be effective in helping people with mental illness into employment, and it could work well within an IAPT setting, although the model may need to be amended slightly regarding the principles of rapid job search, systematic job development, and time-unlimited support.

IPS supported employment has recently been enhanced with other interventions including motivational support, social skills training, and cognitive rehabilitation (Drake & Bond, 2008; Kinoshita et al, 2013), however these enhancements have been aimed at people with severe mental illness only. No effective supported employment interventions with the aim of supporting people with depression currently exist (Bejerholm et al, 2017).

Given that people with common mental illness may be disadvantaged in the job market due to limited opportunity to develop their career management skills, and that career coaching could potentially help to reduce this hindrance although on its own is probably not enough to help an individual with anxiety or depression

overcome their barriers to employment, it could be hypothesised that an enhanced model of IPS with career coaching within an IAPT service might be effective.

Return-to-work interventions such as the government's Work Programme, and IPS itself, focus more on changing the mind-set of employers than they do on changing the beliefs of individuals. For instance, systematic job development is all about encouraging an employer to give someone with a mental health condition an opportunity within their organisation; it is about side-stepping the standard recruitment processes in order to overcome potential barriers of discrimination that a long-term unemployed person with mental illness may experience in the open employment market. Whilst this is unfortunately still necessary (until a complete societal attitude shift occurs), too much focus on employer intervention means that support for the individual can potentially be neglected in a return-to-work service.

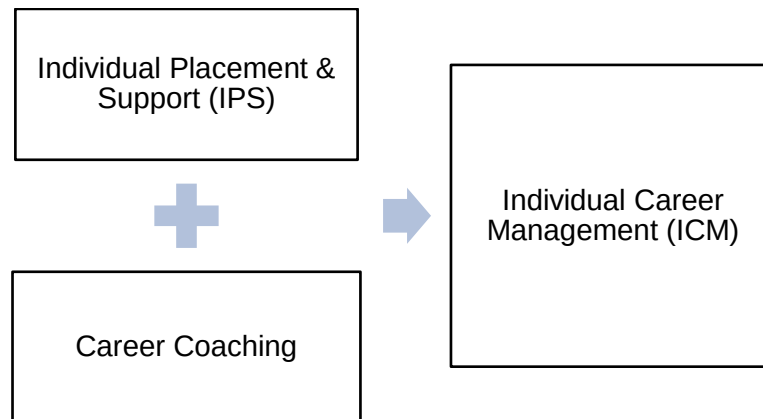
Aside from lack of work experience, and potential discrimination from an employer, the biggest barrier to employment for someone with depression or anxiety is their thoughts and beliefs: in essence, it is their internal psychological barriers rather than external barriers that prevent them from entering employment. Return-to-work interventions that do not address these barriers are therefore likely to be limited in their effectiveness.

2.5.3. Individual Career Management

The Individual Career Management (ICM) model of supported employment addresses the limitations of other return-to-work interventions. It includes support for the individual to overcome their psychological barriers to employment and develop their career management skills, through the provision of individually tailored career coaching. As career coaches are not trained therapists, and some of the psychological barriers may require more in-depth psychological treatment (such as CBT), career coaches work alongside IAPT therapists, just as an IPS employment adviser might work alongside a community psychiatric nurse (CPN) in a CMHT. The ICM intervention is based on the key principles of IPS, with a focus on competitive employment and integration within the clinical team. In addition to the IPS fidelity model, an ICM Framework is used, which encompasses the career management skills that may be required for a person to

return to work, such as career decision-making or job market navigation. The ICM intervention is simplified in Figure 2.1 below and is described in more detail in the next chapter.

Figure 2.1 Simplified diagram of ICM intervention



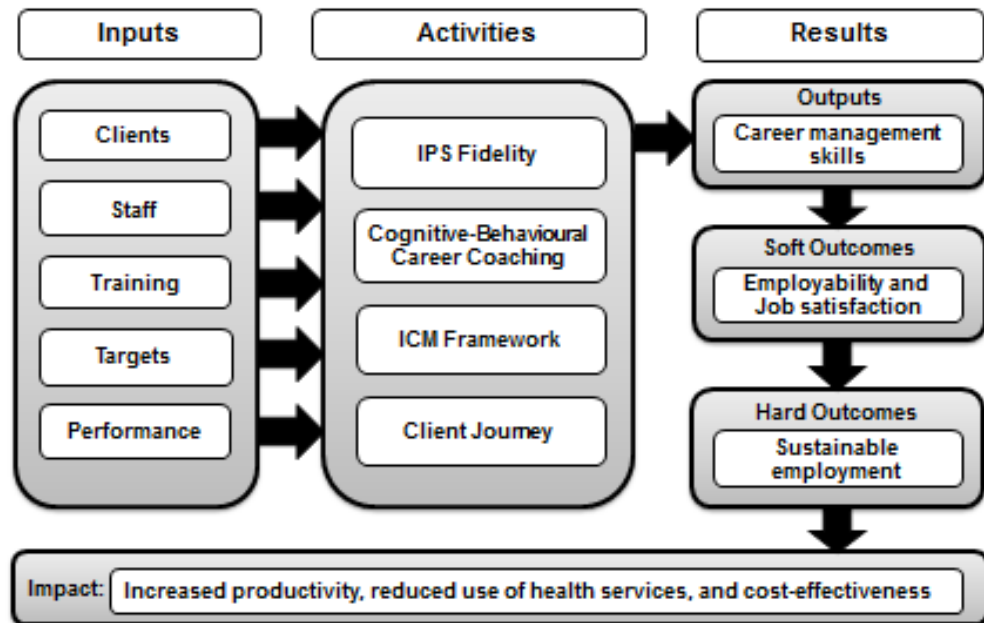
3. Individual Career Management (ICM)

3.1. Logic Model

A logic model is a tool that can be used to graphically describe the key elements of an intervention or program, and the relationships between them. Logic models are useful in the planning and implementation stages of an intervention as well as the basis of evaluation, and are becoming more commonly used in the development and appraisal of new healthcare models (NHS, 2016).

The ICM intervention can be depicted as a logic model with three key components: inputs, activities and results (see Figure 3.1). The main inputs are clients – recipients of the intervention – and staff – facilitators of the intervention. Additionally, training, targets and performance mechanisms are important input factors to ensure the model is delivered correctly. The key activities that define the ICM intervention are the approach (cognitive-behavioural career coaching), content (ICM framework), and process (client journey), in addition to meeting the core requirements of the IPS Fidelity scale. The final component of the model is results, and this can be further classified as outputs, which lead to soft and hard outcomes, described in detail in sections 3.4.2 and 3.4.3 below, generating the overall impact of the intervention.

Figure 3.1 Logic model for ICM intervention



3.2. Inputs

The five inputs to the model are: clients, staff, training, targets, and performance. Clients can access ICM support via their mental health service provider; a referral can be made by their key health professional (e.g. therapist), or they can self-refer to the service.

The eligibility criteria for the ICM intervention is as follows:

- The client is unemployed or employed and at risk of losing their job.
- The client wants to be in paid employment.
- The client is able to attend regular appointments with a career coach.

If the client is employed and not at risk of losing their job, they are considered to be low priority and can potentially access support through their employer or a private service. These clients are excluded in order to ensure that resources are protected for those at higher risk of unemployment. People are considered to be at risk of losing their job if they are off sick from work, or feeling so unhappy that they are likely to go off sick in the near future. Additionally, people who are undergoing any form of performance management, bullying or harassment, or

discrimination at work are also considered to be at risk and are eligible for the intervention.

ICM is suitable for people who want to do paid work, and this includes people who are not yet ready to start looking or would prefer to undertake unpaid work or training before moving into paid work. These people would usually be excluded from an IPS service due to the rapid job search criteria, but without access to support there is a risk that they could move further away from the job market. People who do not wish to work at all should be signposted elsewhere, such as a volunteering or community opportunities service. Furthermore, people that are unable to attend regular appointments with a career coach, for instance due to major events currently happening in their life or being unable to leave their home, are likely to require additional support before they are ready to benefit from the ICM intervention. People that do not meet the eligibility criteria are not necessarily excluded from the ICM service; they may be informed that their application has not been accepted at this time but they can apply for the service again if their circumstances change.

ICM is delivered by teams of career coaches. Each full-time career coach manages a caseload of approximately 25 clients at any given time, and is allocated to one or more clinical teams or services, similar to the role of employment specialist in an IPS service. Hierarchically, lead career coaches are senior staff that supervise other career coaches, and head career coaches provide line management, supervision and training of career coaches, all of which are line managed by a team leader or service manager.

All new career coaches are required to complete the Certificate in Individual Career Management as part of their induction when they start their role. The certificate consists of formal training sessions and field-based exercises with an assessment at the end.

Targets can assist staff in remaining outcome focused; therefore key performance indicators (KPI's) are set for each career coach at the beginning of the year and divided into monthly targets. The three core KPI's are number of clients seen, proportion of clients starting paid employment, and proportion sustaining in employment for at least six months. Other performance indicators such as volunteering, education or training outcomes can also be agreed if necessary.

Career coaches record all client activity on an electronic database, and this enables performance levels to be reviewed on a regular basis. Failure to meet agreed targets can result in performance management, where a career coach is asked to improve their outputs and given additional support or training if necessary. Regular supervision is provided to help with continuous learning and development, and annual performance appraisals encourage career coaches to develop their skills and experience further in the role. Regular service evaluations are undertaken to identify any organisational barriers to performance, and improvement plans are put in place as necessary.

3.3. Activities

3.3.1. IPS Fidelity

The ICM model has very high fidelity to the IPS model of supported employment, according to the Supported Employment Fidelity Scale (Becker et al, 2008). The scale consists of 25 items, each with a maximum score of 5 (details of all items are provided in Appendix 1 for reference). The following scale items are directly relevant to the ICM model and the maximum score of 5 would likely be achieved during a fidelity review:

Item 2: Employment services staff	Career coaches provide only employment services and do not provide mental health case management services.
Item 3: Vocational generalists	Career coaches carry out all six phases of support: programme intake, engagement, assessment, job development/placement, job coaching, and follow-along support.
Item 4: Integration of supported employment with mental health treatment team	Career coaches are part of up to 2 mental health treatment teams from which at least 90% of the career coach's caseload is comprised.

Item 5: Frequent mental health team contact	Career coaches actively participate in weekly “client focused” meetings with the mental health treatment team, where individual clients and their employment goals are discussed with shared decision-making. Documentation of mental health treatment and career coach support is integrated in a single client record.
Item 6: Collaboration with key staff members in Government DWP programmes	Career coaches and Government funded programme staff have scheduled, face-to-face meetings at least monthly and have client-related contacts (phone, e-mail, in person) weekly to discuss shared clients and referrals.
Item 7: Vocational unit	At least two full-time career coaches and a team leader form a supported employment unit with weekly client-based group supervision in which strategies are identified and job leads are shared. They provide coverage for each other’s caseloads when needed.
Item 8: Role of employment supervisor	Supported employment unit is led by a supported employment team leader. Career coach skills are developed and improved through outcome-based supervision.
Item 9: Zero exclusion criteria	All clients interested in working have access to career coach support, regardless of job readiness factors, substance abuse, symptoms, history of violent behaviour, cognitive impairments, treatment non-adherence, and personal presentation.
Item 10: The Mental Health Trust demonstrates a focus on competitive employment	The NHS Trust promotes competitive work through multiple strategies, e.g. the NHS Trust initial assessment includes questions about interest in employment, the NHS Trust displays written postings (e.g., brochures, bulletin boards, posters) about employment and supported employment services, the Trust supports ways for clients to share work stories with other clients and staff, the Trust measures rate of

competitive employment and shares this information with Trust leadership and staff.

Item 11: Executive team support for supported employment	NHS Trust executive team members (e.g., CEO/Executive Director, Chief Operating Officer, QA Director, Chief Financial Officer, Clinical Director, Medical Director, Human Resource Director) assist with supported employment implementation and sustainability.
Item 12: Work incentives planning	All clients are offered assistance in obtaining comprehensive individualised work incentives planning before starting a new job and assistance accessing work incentives planning thereafter when making decisions about changes in work hours and pay. Work incentives planning includes the impact on all sources of income and fringe benefits (Personal independence payments, travel concession, DLA, Working Tax Credits, Universal Credit etc.) and all costs associated with commencing or changing employment.
Item 13: Disclosure	Career coaches provide clients with accurate information and assist with evaluating their choices to make an informed decision regarding what is revealed to the employer about having a disability.
Item 14: Ongoing, work-based vocational assessment	Initial vocational assessment occurs over 2-3 sessions and is updated with information from work experiences in competitive jobs. A vocational profile form that includes information about preferences, experiences, skills, current adjustment, strengths, personal contacts, etc., is upgraded with each new job experience.
Item 16: Individualised job search	Career coaches make employer contacts aimed at making a good job match based on client's preferences (relating to what each person enjoys and their personal goals) and needs (including experience, ability, symptoms, health, etc.) rather than the job market (i.e., those jobs that are readily available). An individualised

job search plan is developed and updated with information from the vocational assessment/profile form and new job/educational experiences.

Item 18: Job development – quality of employer contact	Career coaches build relationships with employers through multiple visits in person that are planned to learn the needs of the employer, convey what the Supported Employment programme offers to the employer, describe client strengths that are a good match for the employer.
Item 19: Diversity of job types	Career coaches assist clients in obtaining different types of jobs.
Item 20: Diversity of employers	Career coaches assist clients in obtaining jobs with different employers.
Item 21: Competitive jobs	Career coaches support clients to find competitive job options that have permanent status rather than temporary or time-limited status, e.g. transitional employment positions. Competitive jobs pay at least the minimum wage, are jobs that anyone can apply for and are not set aside for people with disabilities.
Item 22: Individualised follow-along support	Clients receive different types of in-work support that are based on the job, client preferences, work history, needs, etc. Supports are provided by a variety of people, including treatment team members (e.g., medication changes, social skills training, encouragement), family, friends, co-workers (i.e., natural supports), and career coach. Career coaches also provide employer support (e.g., educational information, job accommodations) at client's request.
Item 23: Time-unlimited follow-along supports	Career coaches have face-to-face contact within 1 week before starting a job, within 3 days after starting a job, weekly for the first month, and at least monthly for a year or more, on average, after working steadily and as desired by clients. Clients are transitioned to step

down job supports from a mental health worker following steady employment.

Item 24: Community-based services	Employment services such as client engagement, job finding and follow-along supports are provided in natural community settings by all career coaches.
Item 25: Assertive engagement and outreach by integrated treatment team	Service termination is not based on missed appointments or fixed time limits. There is systematic documentation of outreach attempts. Engagement and outreach attempts are made by integrated team members. Once it is clear that the client no longer wants to work or continue SE services, the team stops outreach.

The following items in the Supported Employment Fidelity Scale are less relevant to the ICM model and have been adapted:

Item 1: Caseload size	Career coaches have individual caseloads. The maximum active caseload size for any full-time career coach is 25 clients, as opposed to 20 recommended in IPS, as the career coach spends more time with clients and less with employers compared to an IPS employment specialist.

Estimated IPS Fidelity Score = 4

Item 15: Rapid job search for competitive job	Initial employment assessment occurs within 30 days after programme entry, however first <u>face-to-face</u> employer contact about a competitive job occurs when the client is <i>ready</i> , not within 30 days as specified in IPS. If clients are not ready to meet an employer within 30 days (e.g. due to psychological barriers), they are encouraged to undertake graded activity such as volunteering so they can progress to competitive employment as soon as possible.

Estimated IPS Fidelity Score = 3

Item 17: Job development – frequent employer contact	Career coaches make less than two face-to-face client-specific employer contacts each week, as opposed to the recommended minimum of six contacts in IPS. In ICM, clients are encouraged to job search independently rather than being dependent on the career coach to find the job for them.

Estimated IPS Fidelity Score = 1

According to the Supported Employment Fidelity Scale, the total score for an ICM service would be 118 out of 125, which equates to a rating of ‘Exemplary’ supported employment. IPS fidelity is therefore an important part of the ICM model, despite the three adaptations listed above. However, the IPS model of supported employment has several limitations, as highlighted in Chapter One, so ICM includes additional important methods for helping people with mental illness obtain sustainable competitive employment, which are described below.

3.3.2. Approach: Cognitive-Behavioural Career Coaching

Cognitive behavioural career coaching (Sheward & Branch, 2012; Reid, 2016) underpins the ICM intervention: it is the method used in all one-to-one client sessions to help clients overcome psychological barriers to employment and develop career management skills. Cognitive behavioural coaching (CBC) is one of the most popular forms of coaching (Yates, 2016). It is based on the principles of cognitive behavioural therapy (CBT), which is a systematic, action-oriented, problem-solving approach to dealing with emotional and behavioural problems. In contrast, CBC is a coaching approach that integrates problem-solving models within the cognitive-behavioural framework (Palmer & Szymanska, 2007). It is not considered to be a treatment and it can be delivered by coaches trained in relevant CBC techniques; a qualification in CBT is not required.

There are several definitions of coaching in the literature, so it is important to provide an explanation for the ICM intervention. A good description of coaching is *“a Socratic based future focused dialogue between a facilitator (coach) and a participant (coachee / client), where the facilitator uses open questions, active listening, summarises and reflections which are aimed at stimulating the self*

awareness and personal responsibility of the participant” (Passmore & Fillery-Travis, 2011) p74. The important components of this description are:

- **Socratic based:** dialogue involves asking and answering questions to stimulate critical thinking and exploration of ideas and assumptions.
- **Future focused:** discussion centres on the current situation and what can be done to move to the desired future situation; past experiences may be discussed but are not the focus.
- **Personal responsibility:** the client is in control of their own life and can find their own solutions to problems; the coach can facilitate discovery but does not provide solutions.

A client-centred coaching approach is followed in ICM to ensure that the client is supported to progress towards their own goals, not the goals of the career coach. This differs to traditional career guidance, where a client may be directed towards a particular profession by the careers adviser. In modern career management, clients need to be able to make their own career decisions, so this is an important part of the ICM career coaching intervention.

Career coaches develop a therapeutic alliance (Rogers, 1961) with the client by displaying empathy, congruence and unconditional positive regard, and in this respect it can be said that ICM follows the key principles of relationship building in client-centred coaching. There is a slight directive nature to ICM career coaching as the individual is directed towards employment-focussed discussions, however the principle of non-directivity is still followed: the career coach should not interfere with their own judgements or beliefs, as the decisions about paid employment are to be made solely by the client.

ICM career coaching also takes a solution-focused approach (De Shazer et al., 1986). Rather than focussing in depth on the problem, the focus is on identifying what is working for the client, in order to help them progress. Solution-focused coaching assumes that change will happen, and the client is already changing by engaging with the career coach; the client is encouraged to develop their own solutions to their problems, with the assistance of the coach and other resources. Adopting some elements of Miller’s (2006) solution-building career counselling model, ICM career coaches aim to do the following:

- Identify things that the client is doing well and give praise for this.
- Help the client to identify further resources to help them with their goal.

- Encourage the client to think about what life will be like when the goal has been achieved.
- Assess progress towards the goal throughout the session and at the end of the session.

A CBC approach is used throughout ICM to help individuals develop their own solutions for overcoming psychological barriers to employment. Individuals are taught to understand the link between their thoughts, feelings and behaviour, and how challenging negative beliefs can result in positive outcomes (Ellis, 1962). Another important technique in the CBC approach is the use of graded activity. This is a process in which the individual decides to gradually increase their exposure to an anxiety-provoking event or activity (Blonk et al, 2006). The gradual increase is carefully planned and monitored, and at each stage of the exposure the individual rates their level of anticipated and actual discomfort. As the individual becomes more comfortable, the level of exposure is increased. This technique has been found to reduce long-term sick leave (van der Klink et al, 2003). In ICM, graded activity can be used to help individuals deal with their anxiety towards a range of events such as: attending a job interview, calling an employer, starting a training course, or returning to work.

Where a client is behaving in a way that is detrimental to their career goals, for instance by avoiding job interviews or applying for unrealistic roles, a motivational interviewing (Miller & Rollnick, 2012) approach is used to explore and resolve ambivalence to change. In motivational interviewing, the change comes from the client, but the coach directs the client towards making a change. The four principles of motivational interviewing are: expressing empathy, developing discrepancy, rolling with resistance and supporting self-efficacy.

3.3.3. Content: The ICM Framework

The ICM Framework describes the content of the ICM intervention and is shown in Figure 3.2.

Figure 3.2 The ICM Framework



The centre of the framework contains ‘career management foundations’, to indicate that successful management of one’s career is dependent on certain needs being adequately met. IPS was originally developed for people with severe mental illness or disabilities in receipt of long-term clinical treatment, for instance, through a community mental health treatment team (CMHT). In such cases, the individual’s health and social care needs would usually be addressed by the care coordinator at the CMHT, however IAPT services for people with common mental illness do not provide such intensive support. Although an IAPT therapist may identify needs and signpost the client to relevant services, this is not the primary function of their role, and in some cases the client’s health and social care needs may be unmet.

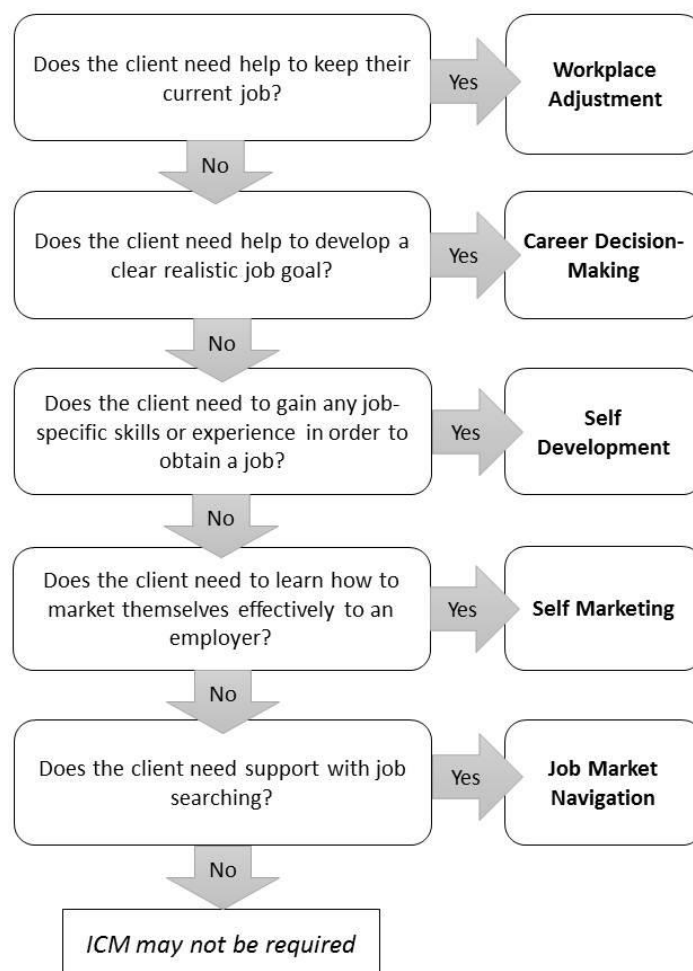
Unmet health and social care needs can be significant barriers to employment, so it is therefore important for the ICM career coach to assess whether the client is receiving the relevant support. Five key personal needs should be addressed, signposting the client to support from the appropriate service or organisation wherever possible:

1. **Health:** Health conditions including physical or mental illness, or disability, can be a barrier to employment if adequate treatment is not received (Secker, Grove & Seebohm, 2001). Whilst a career coach cannot provide support with health problems, they can advocate for the client and link with the relevant treatment service to ensure that their health needs are being addressed.
2. **Housing:** Unemployment and housing problems are often interlinked. If an individual is homeless, living in temporary accommodation, or experiencing problems with their housing, a career coach can signpost them to local support agencies, or a housing or welfare adviser. Immigration status can also be a significant barrier to employment, so a career coach may assist an individual with obtaining relevant paperwork to prove they have the right to work in the UK.
3. **Finance:** Limited financial resources can impact on an individual's ability to job search effectively due to the costs of a mobile phone, internet, and travel, and training and education can also be inaccessible (Blustein et al., 2011). Other financial issues can include debt and money management difficulties, which can be exacerbated when the individual moves into employment. Career coaches can signpost clients to relevant financial support services in the area.
4. **Social Support:** Looking for work and starting a new job can involve quite a life transition for some people, so it is important for them to have someone to support them with this, other than their career coach. Lack of social support can negatively affect career self-efficacy (Choi et al., 2011) and reduce an individual's motivation to return to employment. Those without friends or family can be disadvantaged, however a career coach can help them to find groups of interest in their local community, or meet new people by starting a new hobby or leisure activity. Additionally they could access support from a mentor or befriending service if this is available to them.
5. **Basic Skills:** Regardless of the type of work the client is looking for, they are likely to be disadvantaged in the job market if they do not possess the core skills of literacy, numeracy, speaking English and basic IT. Career

coaches can signpost individuals to relevant local courses where necessary, and can help a client with elementary computer skills such as obtaining an email addresses, learning how to job search on line and communicate via email.

The five elements in the outer ring of the ICM Framework diagram are referred to as career management competencies. These are the essential skills required for successful career management in today's job market. A decision-tree (Figure 3.3) is used to help the career coach identify which of the competencies is most relevant for the client to focus on.

Figure 3.3 Decision tree for ICM intervention



3.3.3.1. Workplace Adjustment

IPS is designed specifically for people who are unemployed and seeking work, rather than people who are in employment and having difficulty keeping their job. Although the in-work support principles of IPS might be useful in helping someone adjust to a new job (e.g. items 22-23 on the fidelity scale), the type of support required for an employee at risk of losing their job requires specialist knowledge and is often more intensive. Some common reasons for people having difficulty are work are: job insecurity, organisational change, relationship problems with manager / colleagues, unsuitable or unhealthy job, and discrimination.

The first stage of workplace adjustment support is to identify whether the individual wants to stay in the same job, move to a new job within the same organisation, or move to a new job in a new organisation. If the individual chooses either of the second two options, they might need additional support such as career decision-making or job market navigation.

If the client wants to stay in the organisation and some changes need to be made, it will be necessary for the individual to speak to their employer. They may decide to do this alone, or with the support of their career coach, or they may even prefer their career coach to talk to the employer on their behalf. If the problem at work involves discrimination, the career coach should signpost the individual for specialist advice and support as necessary, for instance from a trade union representative, citizens advice service, the Advisory, Conciliation and Arbitration Service (ACAS) or local legal advice services. Whether the individual decides to stay with the organisation or not, they may decide to make a complaint of disability discrimination under the Equality Act 2010. A career coach can give an individual some information about their employment rights under the act, and direct them to useful government websites for further information, but cannot give legal advice as this is beyond the scope of their role.

In some job retention cases, the career coach may provide support to the employer as well as the employee, with the employee's permission. Such support could include information, advice, or guidance about managing mental health at work, or delivering mental health awareness training to their employees.

For some clients, the difficulty at work may not be due to the job or the employer; it could be arising from their illness. Condition management involves

understanding the illness, how it might impact on work, and how to manage the illness at work. Whilst some people may find their illness rarely impacts on their work, the more severe the illness is, the more it is likely to affect them. The following examples show how someone with depression or anxiety might be affected at work:

Depression	Being very tired at work due to lack of sleep Lack of energy or motivation to complete work tasks Avoiding contact with colleagues or managers
Generalised Anxiety Disorder	Difficulty concentrating
Social Anxiety Disorder	Avoiding meeting people or talking on the telephone
Obsessive Compulsive Disorder	Carrying out compulsive behaviours that might take time during work hours e.g. cleaning, checking things, asking for reassurance

Also, if an individual is taking medication for their illness, they could also be experiencing side effects that impact on their work, such as indigestion, diarrhoea or constipation, headaches, insomnia, drowsiness, dizziness, or feeling agitated.

The first step in condition management is understanding the illness: every person is different and will be affected by the illness in different ways. The second step is to analyse how the illness affects the person at work (if at all), and the third step is to develop a plan to manage the illness so the impact at work is reduced. In most cases, the third step will require involvement from a mental health practitioner or specialist, however the individual is in control of their illness and will decide how they want to manage it at work.

A wellness recovery action plan (WRAP) (Copeland, 2002) is a tool often used in mental healthcare, which can be adapted to the workplace. The purpose of a WRAP is to support employees to manage their own mental illness at work by identifying 'triggers' for poor mental health, and put steps in place to ensure that problems are addressed quickly and supportively. A WRAP can also help an employer to understand an individual's needs and provide appropriate support. The WRAP is owned by the individual but often developed in collaboration with the employer.

3.3.3.2. Career Decision-Making

The key difference in approach is that IPS supports people to find a job, whereas ICM supports people to manage their career. Career decision-making can be difficult due to the vast range of jobs available and the number of factors involved in making the decision. The ability to make effective career decisions can also be negatively affected by low career decision-making self-efficacy (Amir & Gati, 2006; Taylor & Betz, 1983) and mental health problems which can affect thought processes required for decision-making (Bullock-Yowell et al., 2014).

There are several different theories and models of career decision-making. Some of the common ones include: Bedford's (1982) FIRST framework, Cooperider's (2000) model of appreciative enquiry, and Egan's (2002) skilled helper model. Despite their differences, they all follow a similar staged framework starting with an exploration stage (information gathering, discover, dream, scope and information), followed by decision-making stage (analysis, design, focus and realism), and ending with a planning stage (making a choice, deliver, tactics). In ICM, a four-stage model for career decision-making encompasses the key stages of these models. The four stages are: self-knowledge, job exploration, job market research, and job goal, and can be seen in comparison with other models in the table below.

ICM Model	Bedford's (1982) FIRST Framework	Cooperider (2000) appreciative enquiry	Egan's (2002) Skilled Helper
Self-Knowledge	Scope	Discover – the client discovers information about themselves and the job market.	Information Gathering
Job Exploration	Information	Dream – the client thinks of a variety of possible jobs they could do.	
Job Market Research	Focus Realism	Design – the client narrows down their options and decides on the job goal that is right for them and their circumstances.	Analysis
Job Goal	Tactics	Deliver – the client develops a plan for achieving that job goal.	Making a choice

3.3.3.2.1. Self-Knowledge

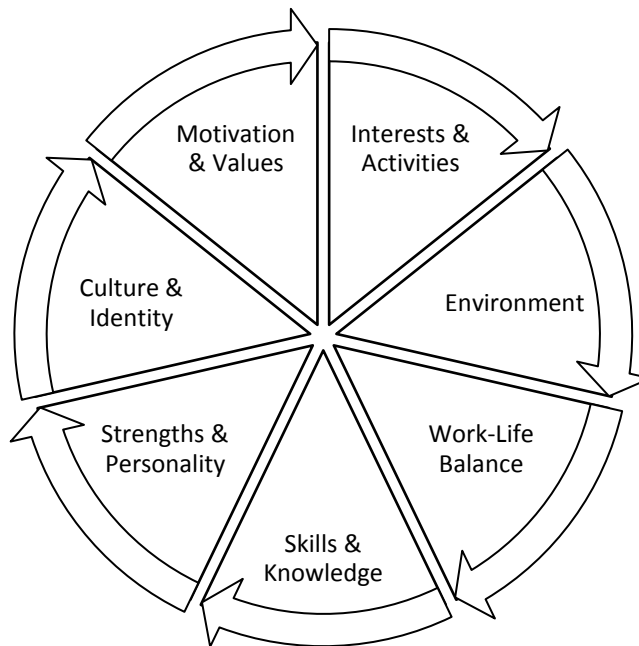
Self-knowledge involves identifying personal needs, preferences, strengths, and weaknesses, and it is an important part of career management that is often overlooked. Career Stage Theory (Super, 1957) proposes that individuals progress through a series of stages throughout their life which involve career decisions that are specific to age. However, this theory is based on the idea of a linear career, which is less relevant in today's world of work. For this reason, the ICM Model does not follow traditional Career Stage Theory explicitly, although career coaches may talk to individuals about which stage of their career they feel they are at, as this can highlight important goals and identify potential barriers to employment. A more helpful question to ask individuals is about the type of job they are looking for at this stage in their career, for instance an entry job (the first step within their chosen field), a dream job (their ideal job based on their personal needs and preferences), a transitional job (a job that will enable them to move into a different field, or move upwards towards their dream job) or a survival job (any job that will enable them to earn an income, regardless of whether it is related to their chosen field).

Person-Environment Fit Theory states that a good fit between an individual and a job depends on a match between the job environment and individual's motives, goals and values (referred to as 'needs-supplies' fit), as well as a match between the job demands and the individual's skills and abilities (referred to as 'demands-abilities' fit) (Caplan, 1987). If a match does not occur, the likelihood of stress and strain on the individual is increased (Edwards & Cooper, 1990).

In order to achieve a good person-environment fit, the individual must firstly identify their needs and factors that are important to them in a job. Rodgers' Seven-Point Plan (1970) consisted of factors that he felt were important for career decision-making in school leavers. Similarly, the ICM model covers seven personal factors that are important for adults, seen in Figure 3.4 below.

A range of tools can be used to help a client explore these personal factors, including: worksheets, questionnaires, family genograms, drawing activities, collage, creative writing, and visualisations. A description of each factor follows.

Figure 3.4 Seven factors of self-knowledge



- 1. Motivation and Values:** Motivation and values are intrinsic factors that are important to an individual for work happiness. There are many theories of work motivation, such as Herzberg's (1966) two-factor theory, Scott's (1966) activation theory, and Hackman & Oldham's (1975) job characteristics model. Each of these theories propose that there are individual differences in motivating factors, but the presence of these factors will increase productivity. The most prominent theory of work-related values is Schein's (1978) Career Anchor Theory. Schein's theory holds that there are eight categories of career anchors: Technical/Functional, General/Managerial, Autonomy/Independence, Security/Stability, Entrepreneurial Creativity, Service/Dedication to a Cause, Pure Challenge, and Lifestyle (Schein, 1985); an individual will have one anchor that is dominant over the others and this will determine their career decisions. Career Anchor Theory also states that anchors mature over time as an individual gains more work experience, and achieving a good fit between an individual's job and their career anchor can improve organisational commitment, job satisfaction and job stability (Chapman & Brown, 2014).

- 2. *Interests and Activities:*** Individuals differ in their interests and preferences for carrying out certain tasks, so it follows that people are attracted most to the jobs that include these activities. Holland (1959) claimed that people can be categorised as being suited to six types of work environments, based on their interests and preferred activities. The six types are: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (RIASEC). Holland's model proposes that people are not categorised into one type – through the use of a questionnaire inventory, a code is assigned to the individual based on their top three types. For instance, someone with a code ISA might enjoy doing investigative work (I) that involves people (S), preferably within the arts field (A).
- 3. *Environment:*** Work environment is an important factor and there are many different types to choose from in the 21st century, including office-based working, field-based working, home-based working, and telecommuting. Working hours and contracts are also important, as jobs can be full-time, part-time, permanent, fixed-term, temporary, or flexible. Some people prefer to work the standard working week (9 to 5, Monday to Friday), whereas others may prefer to work at weekends, evenings, or during the night. Home-based working is becoming increasingly popular, and as such, some people now work a 7-day week where they may check emails and messages over the weekend, whereas others may prefer to have a clear distinction between home and work time.
- 4. *Work-Life Balance:*** An individual's life outside work is an important consideration when making a career decision. If the individual has dependents or caring responsibilities, the decision is likely to affect these people too, and any personal hobbies or non-work interests may also be affected. In ICM, career decisions are seen in the context of the person as a whole, so an exploration into what makes a good work-life balance for the individual is necessary.
- 5. *Skills and Knowledge:*** It is important for an individual to identify what their key skills are, and their key areas of knowledge, because this will

help them to identify the range of possible jobs they can do. People that have been unemployed for a long time may need help with identifying the transferable skills they may have gained away from the workplace, for instance through bringing up a family. It is also useful for an individual to identify whether or not they wish to use these skills or knowledge in a job, as people do not always enjoy doing the things they are good at. They may also wish to learn new skills or knowledge rather than using the ones they have.

6. *Strengths and Personality:* The 'Big Five Factor' theory of personality stems from the work of Norman (1963) and Goldberg (1981). The theory describes five personality traits: Extraversion/Introversion (Surgency), Friendliness/Hostility (Agreeableness), Conscientiousness (Will), Neuroticism/Emotional Stability (Emotional Stability), and Intellect (Openness) (Digman, 1990). A range of personality tests are now available to measure personality traits, many of which have been developed from the 'big five factor' theory (e.g. the Myers-Briggs Type Indicator (MBTI), NEO Personality Inventory (NEO-PI), Occupational Personality Questionnaire (OPQ), and the Hogan Personality Inventory (HPI)). Many of these questionnaires have not been developed for people with mental illness and would therefore need to be used with caution. In addition, the majority of questionnaires are also expensive and can be time consuming. However, a career coach can use simple career counselling exercises to explore personality traits with an individual and help them to think about the type of organisation culture they might be best suited to.

7. *Culture and Identity:* It is important to take into account an individual's culture and spiritual beliefs when they develop their self-knowledge, as this could have an impact on their career choices. The meaning of 'career' may differ between cultures; some people may involve their family members in the decision-making process, and some may involve the Church. Arulmani and Nag-Arulmani (2004) suggest that career coaches should take into account the role of significant other(s) in a person's life,

and the individual's beliefs that may be linked to their socio-economic status.

The next stage of the process in developing self-knowledge is to analyse the personal factors that have been identified, and decide which of them are essential. Some factors are likely to be vital for career decision-making whereas others might be less important; and the more requirements there are, the more limited the job options might be. Career coaches can help individuals to answer questions such as 'which of these personal factors will bring you short-term satisfaction as opposed to long-term happiness?', and 'which factors would you be willing to sacrifice?'

3.3.3.2.2. Job Exploration

Once the client has identified their essential factors for a job, they can explore the range of potential positions that might meet those requirements, and then decide which one is the best fit. In ICM, this has been nicknamed the 'fan and funnel' method. Firstly, the individual expands their ideas as much as they can, identifying as many jobs as possible (like a fan); then they focus on the ideas that appeal most to them, narrowing down their options (like a funnel). The more imaginative the process is, the better, and individuals are encouraged to think abstractly, creating their own job titles if they wish.

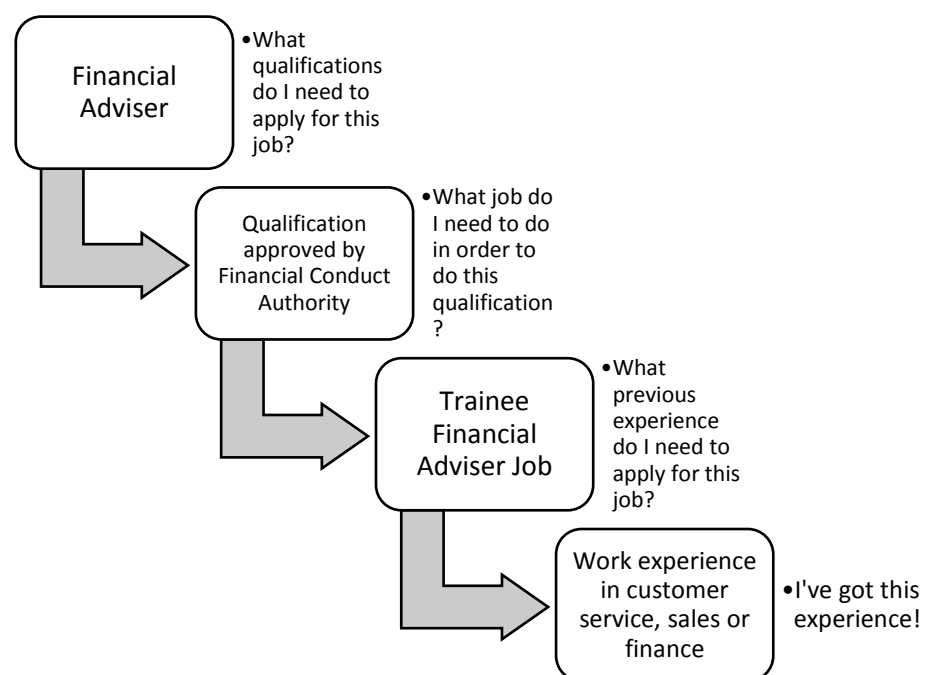
The purpose of this exercise is to help the individual think of possibilities outside their current sphere of knowledge; this can encourage positive thinking and future hope. It also assists people who might be stuck in a particular profession or career path that is not healthy for them, by helping them to find alternatives.

3.3.3.2.3. Job Market Research

The next step of the career decision-making process is to carry out some job market research. Essentially, the individual needs to find out more about each of the jobs they have decided to focus on from the 'fan and funnel' process. Clients are encouraged to find job market information themselves, for instance by researching on the internet or speaking to people who work within the field,

sometimes with the support of the career coach. This material is then transformed into 'labour market intelligence' (Reid, 2016), as the client makes sense of the information in the context of their own situation. If the client identifies that they do not possess the necessary skills or qualifications to apply for the job they want, the career coach can help them construct a 'reverse career plan'. This is a step-by-step process, starting with the job they want, working backwards to their current position. An example reverse career plan for a financial adviser role is shown in Figure 3.5.

Figure 3.5 Reverse career plan for a financial adviser role



The individual can deduct from this plan that the position they should pursue is not 'Financial Adviser', but 'Trainee Financial Adviser'. The process of creating a reverse career plan is again helpful in encouraging positive thinking and focussing on the future.

3.3.3.2.4. Job Goal

On conclusion of their job market research, an individual is then encouraged to decide on a clear and specific job goal. Goal-setting theory states that specific

goals lead to higher performance than vague goals, due to self-regulation (Latham & Locke, 1991). If the individual has identified more than one job through their market research, they need to narrow this down further. People make career decisions in many different ways, and so the individual should decide which method is best for them. Some common methods of career decision-making include:

1. **Individual-Job Match:** the individual will choose the job that meets their essential requirements the best.
2. **Relational Decision:** the individual will choose the job that is most acceptable to the important people in their life (e.g. partner, parents, community, etc.).
3. **Quick Win:** the individual will choose the job that is the easiest for them to get.
4. **System 1:** the individual will choose the job based on their gut instinct.

However, some people are not comfortable with setting specific goals, and forcing them to do this could affect their motivation. The theory of 'planned happenstance' (Mitchell, Levin & Krumboltz, 1999) implies that rather than deciding on one specific job, an individual could decide to pursue all jobs on the list. The idea is that they take the first job that they find, and see where the job leads to. If the job is not right for them, they can try a different job on the list, and so on. The problem with this method is that more effort needs to be put into 'self-marketing' (see section 3.3.3.4), however if an individual is willing to do this, the 'planned happenstance' approach might be best for them.

3.3.3.3. Self-Development

When an individual has set a clear and realistic job goal, they may identify that they need to obtain some experience, skills or qualifications (ESQ's) before applying for the role. This may be the case particularly for people that have been unemployed for a long time, for several reasons, including: an employer may require candidates to have work experience in the last 12 months; an individual may be highly anxious about returning to paid work straight away; or an individual's skills or knowledge may be out-of-date. These vocational barriers can be overcome through education, training, or unpaid work experience.

There is a wide variety of education and training courses available in the UK, and a career coach can help an individual find one that is suitable for them. Several factors should be taken into account when deciding on an appropriate course, including: course level, learning style, available support, and cost.

Unpaid work experience can help individuals to gain relevant experience and work-related skills. There are many different options for obtaining unpaid work experience, including: work placements, volunteering, and work shadowing. Whilst it may be necessary for some individuals to undertake training or unpaid work experience before applying for paid work, it is important that they maintain motivation towards their job goal and not get stuck at this step. Once settled into a training course or unpaid work, an individual can start to feel comfortable and less focused on finding paid employment, so it is vital for the career coach to continue supporting them so the momentum is not lost. Applying for jobs effectively can take several months, so some individuals may want to start preparing for this next stage as soon as their course or placement starts, to put them in the strongest position when it comes to an end.

3.3.3.4. Self-Marketing

Self-Marketing is the process of promoting oneself successfully to potential employers, which involves four stages: identifying employer needs, generating unique selling points, creating marketing tools, and developing a marketing strategy.

The first step in this process is for the individual to think like an employer, and identify their needs and requirements. This can be done by looking at job advertisements, job descriptions and person specifications related to the individual's job goal. A career coach can help an individual to analyse the information and find what the employer is seeking from an employee in terms of experience, skills, qualifications, attitude and personality. If this information is not clear, the individual could carry out some 'fact-finding' telephone calls with the employer or people that work within the field.

When the employer needs have been identified, the individual can then find ways in which they meet them. These are referred to as 'selling points' and can become unique selling points (USPs) by defining how the individual might be

different to other candidates. An example of an employer need is 'customer service experience required', and an individual's USP could be '2 years customer service experience and 'customer adviser of the year' award'.

There are several different tools that an individual could use to market themselves to an employer. The most common marketing tool is a traditional Curriculum Vitae (CV), but new emerging tools are becoming more common, such as: a video CV, a LinkedIn profile, a personal website, or a portfolio. A career coach will support the individual to choose the marketing tool that is most appropriate for their job goal, for instance, some industries don't commonly use LinkedIn, and some types of work cannot be put in a portfolio. In ICM, individuals are encouraged to develop their own CV's and marketing tools, rather than relying on the career coach to do it for them. This encourages them to develop the knowledge and skills needed for finding work independently in the future.

One of the most common areas that individuals need support with is developing effective interview skills. Fear of job interviews and dealing with rejection can also be significant psychological barriers for some individuals. Using a cognitive-behavioural approach, a career coach can help an individual to overcome their anxiety and become more confident in their interview technique.

3.3.3.5. Job Market Navigation

Job Market Navigation is the process of looking for job opportunities that match the individual's job goal. It involves developing a job search strategy, creating a job search timetable, and managing job applications.

The first step of the process is for the individual to decide how they will look for job opportunities. The strategy they develop will mainly be dependent on where relevant opportunities are likely to be found, but also depend on the individual's preferred job searching style. There are a number of different methods of job searching:

Approximately 75-95% of all jobs are found through networking (Hansen, 2013). Whilst some of these jobs are advertised, many are found in the 'hidden market'. This means that the job is filled by an internal candidate or someone recommended by an employee of the organisation. Employers are keen to recruit new staff through the hidden market because hiring decisions are based

on evidence of the candidate's previous work rather than their performance in a job interview or assessment centre, and it is also a less expensive option as there are no advertising or recruitment agency costs.

Individuals can network in person or via social media, but the skills for networking are essentially the same: it involves the ability to approach people confidently, share information with them, and build trusting relationships. When relationships have been formed, the skill is then identifying opportunities that will benefit both parties, and persuading the other person to commit to an action such as a meeting, informal interview, or work trial.

Networking can be challenging for unemployed people because they do not have the same amount of potential contacts that someone might have if they are employed. However contacts can be gained in many ways, such as by attending recruitment fairs, industry events, or social gatherings, and online networking sites such as LinkedIn enable individuals to make contact with people they have never met before.

Another method of finding work in the 'hidden market' is to contact employers speculatively by email/letter, phone or in person. Even if no current vacancies exist, an individual can contact an employer to introduce themselves and offer their services, either as a volunteer or by requesting that their details are kept on file if any vacancies should arise. Speculative contacts should be carefully planned in order to catch the employer's attention. A career coach can help an individual to plan their speculative contacts by preparing a phone script or an 'elevator pitch', as well as helping them to construct well-written emails or letters.

As highlighted in Chapter One, job development involves a career coach contacting an employer on an individual's behalf, with the aim of securing a job opportunity, and is only suitable for people that want to disclose their mental illness. Job development is generally time-intensive but can be an effective option for people who may be unable to obtain employment through other methods.

When an individual has developed their job search strategy, a career coach can help them to create a timetable of job searching activity. The advantage of this is that it creates a sense of routine which can be particularly useful for increasing motivation for people who are unemployed, although it is not mandatory and the client should decide whether or not they want to follow a timetable. Regardless

of whether a timetable is used, job searching activity should be reviewed on a weekly basis with the career coach, to evaluate the effectiveness of the strategy.

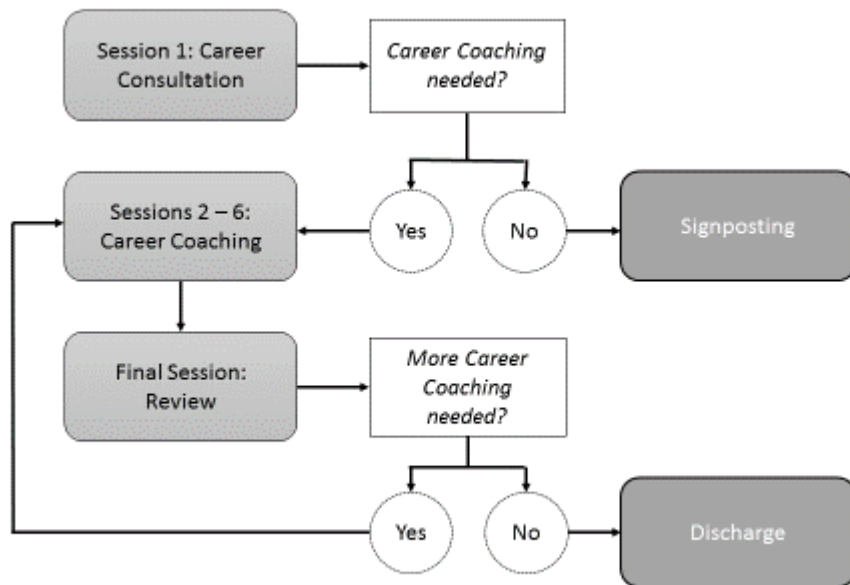
If an individual is job searching on a regular basis, they are likely to review and apply for several positions, and it can therefore be useful to keep a record of this activity. Job application management can help an individual to track each employer contact and evaluate progress over time. A career coach can help with this process and can assist the client in identifying whether the job search results are as expected, or if not, whether the client's goal or strategy needs to change.

3.3.4. Process: The Client Journey

The process for delivering the ICM intervention is the same for every client and in every service. The overarching process can be understood as a client journey.

The first stage in the client journey is a career consultation with the career coach, which involves an analysis of the client's needs and decision about whether career coaching is to be offered. If the client is offered career coaching, this will consist of up to six one-to-one sessions with a review session at the end. Upon review, the client may be offered more sessions or discharged from the service. The journey is illustrated in Figure 3.6.

Figure 3.6 The client journey



Session 1: Career Consultation

A career consultation form is used by the career coach to ensure that suitable questions are asked during the session, however the format of the session is relatively open and led by the needs of the client. The typical structure of the session might include the following points:

1. **Introduction:** Why has the client come to the service? What do they hope to achieve by meeting with a career coach? Explanation of the role of the career coach and what they can offer. Can the career coach offer what they want? (if not, signposting to another service may be required).
2. **Boundaries:** Explanation of the rules around respect, confidentiality and disclosure; and the boundaries of the client-career coach relationship.
3. **Employment Status:** What is the client's employment status? Are they unemployed, or at risk of losing their job?

4. **ICM Framework:** Using the decision-tree, what support does the client need with their career management (e.g. career decision-making, self-development, self-marketing)?
5. **Barriers to Employment:** What does the client feel are the main barriers to employment for them at the moment? Do they have any strategies in place for overcoming these barriers?
6. **Contract:** What does the client want to achieve through ICM career coaching? How many sessions will be offered to help them achieve that goal? What will the frequency, length and location of the sessions be? What will the client expect from the career coach, and what will the career coach expect from the client?

Rapport building is essential at this stage to encourage the client to talk openly about what their goals are and what obstacles they may be facing. The career consultation is usually completed within the first session, although can take longer if rapport is not established immediately. During the career consultation, the career coach assists the client in deciding on appropriate goals to work towards throughout the coaching process. This may involve setting a long-term goal such as returning to paid employment and then separating this into shorter-term goals such as improving their interview skills or starting a training course. Together, the client and career coach discuss how appropriate these goals might be, and what could realistically be achieved within their given timeframe.

At the end of the career consultation, the career coach will summarise the key points in a written record and give a copy of this to the client. This career consultation record can be used for reference throughout the career coaching process to enable the client to reflect on their progress or identify when goals might change.

Sessions 2 to 6: Career Coaching

The career coaching process enables the client to work towards their goal/s by identifying and completing actions. A range of actions may be identified and the client is encouraged to choose the action they feel is the most appropriate. For instance, if the goal is to develop their interview skills, the client may have the

option of some one-to-one interview coaching, attending an interview skills training course, participating in a mock interview, or carrying out some online learning; they may decide to implement just one of these actions or a combination.

Final Session: Review

A review of the client's progress takes place at the last coaching session where the client and career coach evaluate what has been achieved in relation to the client's goals. Regardless of whether goals have been achieved, positive feedback is given to the client on the progress that has been made. The client and career coach then review whether further career coaching sessions may be necessary, and if so, the cycle begins again with another 4-6 sessions.

Discharge

The final stage of the client journey involves arriving at a positive end to the career coaching process. At this point, either the client's goals have been achieved and they no longer require career coaching, or the client needs a different type of support that the career coach is unable offer. In some cases, the end of career coaching may be determined by funding limitations or ineligibility for further sessions (such as no longer being unemployed or at risk of losing their job). A discharge session is held with the client if possible, and often includes the following points:

1. A review of the client's progress, highlighting goals that have been achieved.
2. Advice about next steps that can be undertaken without the support of the career coach.
3. Details of other support services that can be accessed if necessary.
4. Confirmation about whether or not the client can come back to the service in the future.

A written summary of the discharge session is provided to the client.

3.3.4.1. Format

Most sessions are carried out in a one-to-one format: a private meeting between the client and career coach. Whilst group coaching may not always be appropriate in career coaching, due to the individualistic nature of career development, group learning sessions can sometimes have advantages over one-to-one sessions. The main advantage of group learning is that it can be cost-effective in terms of time and resources, but other advantages include the social support that clients can gain from each other in a group setting, and learning that can take place in group activities. Talking to others in a similar situation can enhance understanding and decrease feelings of isolation; networking can also take place in group sessions, and occasionally clients make useful contacts that could even help them progress in their job search. However, group learning sessions are always used in addition to one-to-one coaching, not instead of it, and are only facilitated by a career coach who is experienced and skilled in managing groups.

3.3.4.2. Structure

One-to-one career coaching sessions can differ in content depending on the client's needs and goals, however all sessions follow a similar structure from start to finish. The structure is a five-stage process: 1) Contracting, 2) Exploration, 3) Planning, 4) Action, and 5) Review and Ending. This structure is based on a combination of different coaching models: Egan's (2013) Three-Stage Model, Reid & Fielding's (2007) Single Interaction Model, Nelson-Jones (1997) DASIE Model, Nathan & Hill's (2006) Three-Stage Model, and Whitmore's (2002) GROW Model. A summary of these models is provided in Figure 3.7.

Figure 3.7 Five-stage process of ICM career coaching compared to other models

ICM	Egan's Three- Stage Model	Single Interaction Model (SIM)	Nathan & Hill 3-stage Model	DASIE Lifeskills Model	GROW Model
Contracting Establish goals and what will be covered during the session.	Stage 1: Current Scenario	Stage 1: Negotiating contract and agreeing agenda	Stage 1: Screening, contracting and exploring	D: Develop the relationship and clarify the problem	Goal: Identify what client wants to achieve during session
Exploration Explore the client's current situation and various options for achieving their goals.	Stage 2: Preferred Scenario	Stage 2: Developing issues and identifying goals	Stage 2: Enabling client's understanding	A: Assess and restate the problem in skills terms	Reality: Gain in-depth understanding of what is happening for the client right now Options: Generate options, then analyse and evaluate them
Planning Decide on the best option and plan how to do it.	Stage 3: Getting There	Stage 3: Designing, planning and implementing action		S: State goals and plan interventions	Way Forward: Agree steps related to goals and planning of action
Action Put the plan into action.			Stage 3: Action, outcome and endings	I: Intervene to develop life skills	
Review & Ending Review whether the action was successful and agree next steps.				E: Emphasise take-away (the benefits) and end	

There are several similarities and differences between the models. All of the models start with a 'contracting' stage that involves setting a goal or agenda for the session, and a stage for 'exploration': looking at the current situation in more detail and exploring options for achieving the goal. There is an element of 'planning' in each model, which appears in either the 'exploration' or 'action' stage. Some of the models conclude the session with a plan, but not all of them put it into 'action'. Of those that include the 'action' in the model, some conclude with a review and ending, whereas others conclude with the 'action' itself.

Agreeing homework tasks is an important part of the career coaching process as it encourages the client to take ownership and develop their own skills and knowledge. It also enables the career coach to check the client's understanding and assess their motivation; if a client is motivated to progress in their career, homework can also speed up the process between sessions. Furthermore, homework allows the client to explore further ideas as it provides time to think and reflect on the session.

Brown and colleagues (Brown et al., 2003) recommended that the effectiveness of career coaching interventions can be improved if the following critical ingredients are included:

1. Clients are supported to develop written goals for their future
2. Clients are provided with opportunities to gather and process occupational information
3. Clients are encouraged to search for and use occupational information outside of sessions
4. Opportunities are provided for clients to compare occupations or fields of interest, and the support available for each option
5. Individual consultations are provided for problematic assessment results
6. Models are shown for people that have successfully coped with career exploration and choice-making difficulties.

3.4. Results

The results of the ICM intervention are not yet known, as it has never been evaluated in comparison to an alternative intervention or control condition. However the theoretical framework of the intervention implies that a range of

results might be possible. These can be categorised as outputs, soft and hard outcomes, and impact.

3.4.1. Outputs

The key outputs of ICM are the changes seen in clients that receive the intervention. The theory of change is that the combination of cognitive-behavioural career coaching with the ICM Framework enables clients to develop the career management skills highlighted in section 2.4.2. (decision-making, resilience and adaptability, overcoming fear, confidence and self-esteem, and self-motivation), and thus improves their chances of success in their career. Measurement of these outputs would be useful in an evaluation of the ICM intervention.

3.4.2. Soft Outcomes

The acquisition of career management skills is likely to increase the chance of the individual achieving soft outcomes, outcomes that are likely to lead to or support the achievement of the ultimate goal (or 'hard' outcome) of an intervention, such as employability and job satisfaction. If they are unemployed, they may feel more ready to return to work, and may have also undertaken some form of occupational activity to enhance their CV, such as recent work experience, volunteering, training or education. Their mental health and wellbeing may have also improved, which means they might be more able to sustain in employment. If they are employed, their career management skills may increase ability to improve their situation at work (for instance by moving to a job that they are better suited to, or learning how to deal with organisational conflict), and this could potentially result in increased job satisfaction. These soft outcomes could be important indicators of the effectiveness of the ICM intervention.

3.4.3. Hard Outcomes

Competitive employment is the ultimate ‘hard’ goal of ICM (as it is in IPS), because of the positive effect that paid employment can have on an individual’s recovery and social inclusion, however as ICM takes a broader approach to career management, an education, training or volunteering outcome might be more appropriate for the individual at that given point in their career, rather than paid employment. Therefore, all hard outcomes should be considered important in an evaluation of the effectiveness of the intervention. Where paid employment is the goal, sustainment in employment (for instance, over 12 months) would be a key indicator of whether the return to work has been a success.

3.4.4. Impact

Although the ICM intervention is currently delivered within the NHS, it is designed to help improve employment outcomes as well as health and wellbeing outcomes, and as such, the impact of the intervention could be as wide as the societal level. Research indicates that if people with mental health conditions move into employment, there will be a reduction in health service costs and increase in productivity (Fujiwara, 2010), resulting in potential cost savings to employers and the NHS. There could also be positive impact on families and communities. It is therefore important that the impact of the ICM intervention is evaluated at a societal level, not just the level of the individual.

This chapter has outlined the ICM intervention and provided a framework upon which an evaluation of ICM can be built. The next chapter reviews existing evidence of evaluations of supported employment services to support the methodological development of the ICM evaluation.

4. Systematic Review

4.1. Introduction

In order to design the methods for the CAREER study, a review of previous RCT's and economic evaluations in the field of supported employment was required. A Cochrane review of vocational rehabilitation, including supported employment, was published in 2001 covering publications up to the year 1998 (Crowther et al., 2001). It was therefore proposed that a summary of the studies identified in the review would be produced, which is reported in section 4.2 below.

An update to the Cochrane review was in progress at the time this work was carried out (Kinoshita et al., 2013), but would not be available to the author in time for inclusion in this Chapter. Given the previous Cochrane review, a full systematic review was considered unnecessary so instead a rapid, semi-systematic literature review was carried out to identify key studies published since the original Cochrane review that may be of value to the current work. The details of this review are provided in section 4.3.

The Cochrane review was limited to the effectiveness of vocational rehabilitation services, and did not consider cost-effectiveness and so a separate systematic review was undertaken to identify any studies that carried out an economic evaluation, to further support the design of the methods for the CAREER study. The systematic review is reported in section 4.4.

4.2. Summary of Cochrane review of vocational rehabilitation

4.2.1. Aims and objectives

The aim of the Crowther and colleagues systematic review was to assess the effects of pre-vocational training and supported employment by comparing them against each other and against standard care (hospital or community rehabilitation support). Additional aims of the review were to assess the effects of special models of pre-vocational training and supported employment

(Clubhouse model and IPS model), and to assess the techniques for enhancing these models.

4.2.2. Inclusion and exclusion criteria

4.2.2.1. Studies

RCTs with data that could be analysed on an intention-to-treat basis. The publication date range was not specified, however database searches went up to the year 1998.

4.2.2.2. Participants

Aged 18-65 and suffering from severe mental disorder (including schizophrenia, bipolar disorder or depression with psychotic features). Substance misuse (with no other mental health condition) was not considered a severe mental disorder, and trials with a majority of participants with learning disability were excluded.

4.2.2.3. Interventions

Four interventions were included: pre-vocational training (any approach that included a period of preparation before participants were encouraged to seek competitive employment); supported employment (any approach that attempted to place participants in competitive employment immediately i.e. less than 1 month preparation); modified vocational rehabilitation (any pre-vocational training or supported employment approach that had been enhanced by a technique to increase participants' motivation); and standard care (usual psychiatric care for participants without a vocational component).

4.2.2.4. Outcome measures

The primary outcome was number of participants in competitive employment. There were three groups of secondary outcomes: other employment outcomes (any form of employment or education, mean hours per month, mean monthly earnings); clinical outcomes (numbers lost to follow-up, numbers not participating in program, admitted to hospital or living in community at end of study, symptoms, quality of life, and social functioning); and costs (mean monthly program costs, and mean monthly healthcare costs).

4.2.3. Search strategy

Electronic searching was carried out using five sources: CINAHL, the Cochrane Library, EMBASE, MEDLINE, and PsycLIT. Further searching was undertaken by comparing the results of the search with reference lists of the identified papers and adding further terms to the search strategy, and personal contact was made with researchers in the field to identify unpublished studies.

4.2.4. Main results

Eighteen RCT's were identified by the search strategy. Supported employment was found to be significantly more effective than pre-vocational training in terms of number of people in competitive employment (34% vs 12%).

4.2.5. Summary of methods identified

The research methods used in each of the 18 studies are summarised in the tables below. Table 4.1 includes the methodological details of the studies such as the intervention and control conditions, random allocation method, length of follow-up, and numbers lost to follow-up. Table 4.2 includes the employment and program related outcomes measured in each of the studies, including competitive employment, any form of employment or education, program participation, hospitalisation/discharge, monthly earnings, time in employment, and program /

healthcare costs. Table 4.3 includes the clinical outcomes measured in each of the studies, including mental state, self-esteem, social functioning, quality of life, cognitive functioning and attitude.

Only eight (45%) of the studies used a model of individual placement and support (IPS) or similar as the experimental condition (Blankertz & Robinson, 1996; Bond & Dincin, 1986; Bond et al., 1995; Drake, et al., 1996; Drake et al., 1999; Gervery & Bedell, 1994; Kuldau & Dirks, 1977; McFarlane et al., 2000) and only nine (50%) of the studies had been published within the previous ten years (since 1991).

The method of random allocation was rarely stated in studies; where given, the methods included using a sealed envelope (22%), random number tables (11%), computer-generated sequence (6%), drawing lots from a hat (6%), allocation to experimental group every fourth day (6%), and 'oversampling' of experimental group (6%) – although there was no explanation given of what this meant. One study stated that allocation was stratified according to work history; no other stratification methods were mentioned in any other studies.

Follow-up periods ranged from 1 month to 48 months, with half of the studies (n=9) collecting data at more than one interval during the follow-up period. Losses to follow-up ranged from 0% to 37%, although the loss-to-follow up rate was unclear in several of the studies.

Most of the studies (89%) measured competitive employment as a primary or secondary outcome, and other employment outcomes included: any employment / education (e.g. including sheltered work) (50%), time to employment / time (length) of employment (45%), and monthly earnings (50%). Several studies measured 'not participating in program' as a primary or secondary outcome (67%), and most studies measured rates of re-hospitalisation, discharge, or length of stay in hospital (61%). Only four (22%) studies measured program or healthcare costs.

Clinical outcomes were measured in only seven studies (39%). Outcomes and measurement scales used included: Mental state measured using the Positive and Negative Syndrome Scale (PANSS) (n=1), the Brief Psychiatric Rating Scale (BPRS) (n=2), or a measuring scale not stated/unpublished (n=2); Self-esteem measured using the Rosenberg's Self Esteem scale (n=3) or the Wing scale (n=1); Social functioning measured using the Social Level of Functioning Scale (n=1), or the Global Assessment Scale (n=1); Quality of life measured using the

Lehman's scale (n=2); Cognitive functioning measured using the Wechsler Adult Intelligence Scale (WAIS) (n=1); and Attitude using an unpublished scale (n=1).

4.2.6. Conclusion

This systematic review of vocational rehabilitation provided some useful information for the design of the CAREER study in terms of potential outcomes, measurement scales, random allocation methods, follow-up periods and rates of losses to follow-up. However many of the intervention conditions were inpatient-based programs and several of the interventions were not considered to be supported employment, so they were less relevant to the ICM intervention. In addition, several of the studies took place more than 20 years ago, which meant that their methods may be less applicable to the design of RCT's today as there have been several advances in research methods over the last two decades (Schulz, Altman, & Moher, 2010).

Table 4.1 Methodological details of 18 studies identified in Cochrane review

Study	Intervention Condition	Control Condition	Random Allocation Method	Follow up	Lost to follow-up
Beard et al (1963)	Clubhouse	Community care	By day of application (patients on every 4 th day allocated to control group)	Every 3 months for two years	14%
Becker (1967)	Specialised rehabilitation ward	Continuing inpatient treatment on rehabilitation wards	No details given	8 months	0%
Bell et al (1996)	Sheltered set-aside jobs in the hospital	As intervention, but not paid	No details given	5 months	4%
Blankertz & Robinson (1996)	Two employment specialists	Usual services of community mental health team (CMHT)	'Oversampling of experimental group' (no explanation of what this means)	9 months	0%
Bond & Dincin (1986)	Immediate job placement	Gradual approach to supported employment	Sealed envelope	4, 9, 15 months	18%
Bond et al (1995)	Immediate entry into supported employment	>4 months preparation in prevocational work-readiness training	Sealed envelope	12, 24, 48 months	14% at 1 year, 6% at 4 years

Study	Intervention Condition	Control Condition	Random Allocation Method	Follow up	Lost to follow-up
Chandler et al (1997)	Village integrated services agency	Usual mental health services	No details given	12, 24, 36 months	21% at 1 year, 29% at 3 years
Dincin & Witheridge (1982)	Threshold rehabilitation program	6 hours/week supportive treatment	Sealed envelope	9 months	37%
Drake et al. (1996)	Individual placement and support (IPS)	Group skills training on pre-employment preparation	Computer-generated random sequence	Every month for two years	2%
Drake et al. (1999)	Individual placement and support (IPS)	Enhanced vocational rehabilitation	Random number tables, stratified according to work history	6, 12, 18 months	5% at 18 months
Gervy and Bedell (1994)	Immediate placement in supported employment	Employment training in sheltered workshop setting with weekly therapy	Lots drawn from a hat	12 months	0%
Griffiths (1974)	Rehabilitation program	Usual care (e.g. referred back to doctors, day centres, home or hospital)	No details given	18 months	0%
Kline & Hoisington (1981)	Group session to discuss work values	Usual vocational rehabilitation services	No details given	6 months	0%

Study	Intervention Condition	Control Condition	Random Allocation Method	Follow up	Lost to follow-up
	(1.5 hours/week for 12 weeks)				
Kuldau & Dirks (1977)	Employment co-ordinator worked with patients to help find employment	Rapid discharge with emphasis on work-related activities	Sealed envelope	18 months	5%
McFarlane et al. (2000)	Family aided assertive community treatment (ACT) including support from a vocational specialist	Conventional vocational rehabilitation with referral to state vocational rehabilitation service	No details given	Every 3 months for 18 months	16% at 18 months
Okpaku et al (1997)	Employment oriented case management	Standard case management service from community mental health centre	No details given	Variable – from 7 to 28 months	0%
Walker et al (1969)	Community-based hospital industrial rehabilitation placement	Standard hospital and community care	Table of random numbers	6 months	0%
Wolkon et al (1971)	Rehabilitative treatment including transitional work projects	Standard aftercare services	No details given	12, 18, 24, 30 months	8%

Table 4.2 Employment and program related outcomes for 18 studies identified in Cochrane review

Study	Competitive Employment	Any form of employment / education	Not participating in program	Hospitalis- ation / discharge	Monthly earnings	Time in employment / time to find employment	Program / healthcare costs
Beard et al (1963)	Yes	Yes	Yes	Yes	No	No	No
Becker (1967)	Yes	Yes	No	Yes	No	No	No
Bell et al (1996)	No	Yes	Yes	Yes	Yes	Yes	No
Blankertz & Robinson (1996)	Yes	Yes	Yes	No	No	No	No
Bond & Dincin (1986)	Yes	Yes	Yes	Yes	Yes	Yes	No
Bond et al. (1995)	Yes	No	Yes	Yes	Yes	Yes	Yes
Chandler et al. (1997)	Yes	Yes	Yes	Yes	Yes	No	Yes
Dincin & Witheridge (1982)	Yes	No	Yes	Yes	No	No	Yes
Drake et al. (1996)	Yes	No	Yes	No	Yes	Yes	No

Study	Competitive Employment	Any form of employment / education	Not participating in program	Hospitalis- ation / discharge	Monthly earnings	Time in employment / time to find employment	Program / healthcare costs
Drake et al. (1999)	Yes	Yes	No	Yes	Yes	Yes	No
Gervery & Bedell (1994)	Yes	No	No	No	No	Yes	No
Griffiths (1974)	Yes	No	No	No	No	No	No
Kline & Hoisington (1981)	Yes	No	Yes	No	No	No	No
Kuldau & Dirks (1977)	Yes	No	No	Yes	Yes	Yes	No
McFarlane et al. (2000)	Yes	Yes	Yes	Yes	Yes	No	No
Okpaku et al. (1997)	No	Yes	Yes	No	No	No	Yes
Walker et al. (1969)	Yes	No	Yes	No	Yes	Yes	No
Wolkon et al. (1971)	Yes	No	No	Yes	No	No	No

Table 4.3 Clinical outcomes for 18 studies identified in Cochrane review

Study	Mental state	Self esteem	Social functioning	Quality of life	Cognitive functioning	Attitude
Beard et al. (1963)	No	No	No	No	No	No
Becker (1967)	No	No	No	No	No	No
Bell et al. (1996)	PANSS	No	No	No	No	No
Blankertz & Robinson (1996)	No	Rosenberg scale	Social Level of Functioning scale	No	No	No
Bond & Dincin (1986)	No	No	No	No	No	No
Bond et al. (1995)	No	No	No	No	No	No
Chandler et al. (1997)	No	No	No	No	No	No
Dincin & Witheridge (1982)	No	No	No	No	No	No
Drake et al. (1996)	BPRS	Rosenberg scale	Global Assessment of functioning	Lehman's scale	No	No
Drake et al. (1999)	BPRS	Rosenberg scale	None	Lehman's scale	No	No

Study	Mental state	Self esteem	Social functioning	Quality of life	Cognitive functioning	Attitude
Gervy & Bedell (1994)	No	No	No	No	No	No
Griffiths (1974)	No	Wing scale	No	No	WAIS	Attitude rating scale (unpublished)
Kline & Hoisington (1981)	No	No	No	No	No	No
Kuldau & Dirks (1977)	No	No	No	No	No	No
McFarlane et al. (2000)	Yes – measure not stated	No	No	No	No	No
Okpaku et al. (1997)	No	No	No	No	No	No
Walker et al. (1969)	No	No	No	No	No	No
Wolkon et al. (1971)	Psychiatric symptoms – unpublished scale	No	No	No	No	No

PANSS = Positive and Negative Symptoms Scale; BPRS = Brief Psychiatric Rating Scale; WAIS = Wechsler Adult Intelligence Scale

4.3. Literature review of RCT's published since systematic review

4.3.1. Aims and objectives

As highlighted in section 4.2 above, the details of the RCT methods in the Crowther et al (2001) systematic review were limited and over ten years old. A rapid semi-systematic review of the literature was undertaken in an attempt to identify additional studies published since the Crowther et al (2001) review which could inform the design of the CAREER study. The aim of this literature review was to identify any recent RCT's published since 2000 in the field of supported employment that included IPS as the experimental intervention. The reason for focussing on IPS was that this is the most similar evidence-based model to ICM and there had been a substantial increase in the number of IPS studies published since 2000, due in part to the findings of the Crowther et al (2001) review which suggested that IPS is more effective than traditional vocational rehabilitation methods in helping people with mental health conditions move into competitive employment.

4.3.2. Inclusion and exclusion criteria

4.3.2.1. Study design

Only studies with an RCT design were included in the literature review. Non-controlled studies, systematic reviews and meta-analyses were excluded. This was to ensure that the methods were applicable to the CAREER study. Date of publication was limited to year 2000-2010, and only papers published in the English language were included as there were no resources available for translation.

4.3.2.2. Participants

The population was anyone with a mental health condition, which included common mental illness and severe mental illness. No exclusions were made

according to type of psychiatric diagnosis as it was anticipated that the number of studies would be low, so a broad definition of 'any mental illness' was used.

4.3.2.3. Interventions

The experimental intervention in all studies was IPS or a similar model of supported employment. Control conditions included standard care or an alternative model of vocational rehabilitation (such as pre-vocational training).

4.3.2.4. Outcome measures

Studies that included competitive employment as a primary or secondary outcome measure were included, since the purpose of the review was to inform the design of the CAREER study and competitive employment was a stated aim of the study.

4.3.3. Search strategy

Electronic databases (EMBASE, Medline and PsycINFO) were used to identify relevant studies. A simplified search strategy including the phrase "individual placement and support" was used as a search term in titles and abstracts only, to limit results to studies that were focused solely on IPS. It was unnecessary to restrict the search by population, as the IPS intervention is designed for adults with mental health conditions and the search would therefore identify studies with relevant participants. Results were limited to RCT's only.

Twenty-eight papers meeting the inclusion criteria were located and downloaded. Eighteen papers were excluded due to being a systematic review, meta-analysis, or secondary analysis of previously published RCT data. The 10 remaining papers were reviewed and the methods were extracted into a table using a Microsoft Excel spreadsheet. The areas of interest for informing the design of the CAREER study were: inclusion criteria of participants used in the study, method for recruiting participants (including payment), sample size (including attrition rate), random allocation method (including stratification), researcher

blindness, follow-up period and intervals, primary and secondary outcome measures used, statistical analysis methods, and type of economic evaluation (where included).

4.3.4. Summary of methods identified

Table 4.4 to Table 4.6 summarise the following for each of the ten studies identified: inclusion criteria; recruitment and random allocation methods; sample size, follow-up and analysis methods; employment-related outcomes and measurement scales; and non-vocational outcomes and measurement scales.

4.3.4.1. Participant inclusion criteria

Inclusion criteria for the ten studies are summarised in Table 4.4. Nine of the studies (90%) stated that participants must 'want to obtain competitive employment' as an essential inclusion criterion. Fifty percent of the studies stated 'ability to give consent' as an inclusion criterion however it is assumed that this was necessary for all studies as random allocation would not be possible without informed consent. Eight of the studies (80%) stated an age range in their inclusion criteria, 7 of which related to adults of working age, and one study included participants from the age of 15 as it was conducted in an early intervention in psychosis (EI) service, which caters for adolescent patients as well as adults. Nine of the studies (90%) had an inclusion criterion relating to employment history, with a high degree of variability between studies on the length of unemployment. One study stated that participants must not have any previous experience of IPS; this was not mentioned in the other studies.

4.3.4.2. Recruitment and random allocation methods

Recruitment and random allocation methods are summarised in Table 4.5. Eight of the studies (80%) described the process for identifying and recruiting participants, which included: mental health professionals or case managers asking patients if they would like to be approached by the research team, inviting

patients to attend research meetings, and researchers attending clinical meetings. Four of the studies (40%) offered payment to participants for attending research interviews and taking part in the study. Eight of the studies (80%) gave details of the random allocation method, which included computer-generated randomisation sequences and the use of pre-prepared sealed envelopes. Where stated, randomisation was carried out by someone independent of the study (i.e. not part of the research team). Stratification was used in four of the studies (40%) and included variables such as centre, gender, work history, age and ethnicity.

4.3.4.3. Sample size, follow-up and analysis

Details of sample size, follow-up and analysis methods can be found in Table 4.6. The entry rate of participants differed between studies, ranging from 30% to 100% of recruited participants entering the study. The proportion of participants included in the analysis ranged from 61% to 100%. Follow-up interviews were either 3, 6 or 12 months apart, and several of the studies included more than one follow-up point. The final follow-up period ranged from 6 months to 2 years. Researcher blindness was unclear in several of the studies and only one study confirmed that the researcher was blind to allocation at follow-up. Where researchers were unable to be blind to allocation, a range of different systems were put in place to reduce bias, including outcomes being corroborated with records, outcomes being measured by self-report from the participant, and interviewers not having a stake in the final outcome. A range of statistical analysis methods were used, with t-tests and chi-square tests being the most common types of models. Only one study included an economic evaluation as part of the trial, and the method used was a cost-effectiveness analysis, which involves combining costs with effects measured in 'natural units' such as clinical outcomes.

4.3.4.4. Outcomes and measurement scales

Primary and secondary employment-related outcomes recorded in each study are shown in

Table 4.7. The primary outcome in 9 of the studies (90%) was entry into competitive employment whilst the final study focused on 'any employment'. Secondary employment-related outcomes were similar across studies: 90% recorded number of hours worked per week, 90% recorded number of days worked per week, 90% recorded salary earned, and 90% recorded type of job. Two studies (20%) recorded time to first job (from date of entry to study), and three studies (30%) recorded details of job terminations or number of jobs undertaken during the follow-up period.

A range of non-vocational outcomes were also recorded in several studies, using a variety of measurement scales which are shown in Table 4.8. Eight of the studies (80%) measured psychiatric symptoms, seven (70%) measured quality of life, five (50%) measured social functioning, three (30%) measured job satisfaction, three (30%) measured drug and alcohol use, and two (20%) measured self-esteem. One study (10%) measured health and social services resource use.

4.3.5. Conclusion

The review of recent RCT's of IPS provided some useful information for the design of the CAREER study. Ninety percent of studies used 'competitive employment' as the primary outcome and included 'want to obtain competitive employment' within the inclusion criteria, to ensure that the focus of the study was on people wanting to enter paid employment. Secondary clinical outcomes were also common, with 90% of studies measuring psychiatric symptoms and 70% measuring quality of life, however surprisingly few of the studies measured other secondary non-vocational outcomes such as self-esteem or job satisfaction.

An interesting observation was that the most common method of random allocation was using a computerised randomisation system, and that randomisation was carried out by someone (e.g. a statistician) separate to the research team. This contrasts greatly to the studies identified in the Crowther et al (2001) review, where computerised randomisation methods were used in only one study; this is an indication of how research methods have advanced within the last decade.

Despite using more sophisticated methods of randomisation, many of the studies were still subject to risk of bias as the interviewers were not blind to allocation at follow-up, however several of the studies had taken measures to reduce the risk of bias where possible, such as corroborating the primary outcome data with another source such as clinical records.

Overall, the studies provided useful information about potential recruitment methods, sample sizes and statistical analysis models to use in the design of the CAREER study. However only one of the studies included an economic evaluation, so information about economic methods was still limited. It was therefore decided that a further literature review would be necessary to explore the literature again, with a focus on economic evaluation methods in the field of supported employment.

Table 4.4 Participant inclusion criteria used in 10 RCT's of IPS

Study	Wants to obtain employment	Able to give consent	Age range	Criteria relating to employment history	Other criteria
Bond et al. (2007)	Yes	Yes	18 to 65	No competitive employment in last 30 days	No previous experience of IPS
Burns et al. (2007)	Yes	No	18 to 65	Unemployed for at least one year before the trial	None
Gold et al. (2006)	Yes	No	18 or over	Unemployed at time of entry	None
Howard et al. (2010)	Yes	Yes	18 to 65	Unemployed for at least 3 months	None
Killackey et al. (2008)	Yes	No	15 to 25	Unemployed, or if employed, want to change to a new job	None
Latimer et al. (2006)	Yes	Yes	18 to 64	Unemployed at time of entry	None
Lehman et al. (2002)	No	No	None	Unemployed for at least 3 months	None
Mueser et al. (2004)	Yes	Yes	None	Not in competitive employment	None
Wallace and Tauber (2004)	Yes	No	18 to 70	At least two unsuccessful job experiences in last three years	None
Kin Wong et al. (2008)	Yes	Yes	18 to 65	None stated	None

Table 4.5 - Recruitment and randomisation methods used in 10 RCT's of IPS

Study	Identification of participants	Payment offered for participation	Randomisation method	Stratification used in randomisation	Randomisation carried out by
Bond et al. (2007)	Case managers encouraged patients to attend research information meetings	\$5 to \$15 depending on length of interview	Computerised randomisation list in lots of 20	None	Offsite project director
Burns et al. (2007)	Not stated	No	MINIM version 1.5	By centre, sex and work history (more than 1 month in the past five years)	Statistician, not researcher
Gold et al. (2006)	Mental health professionals asked patients if they wanted to be approached by researcher	\$25	SAS-generated restricted random assignment sequence (blocks of 3)	None	A statistician and research assistant separate to the investigator
Howard et al. (2010)	Mental health professionals asked patients if they wanted to be approached by researcher	£20	Randomisation with minimisation	By gender and age (10-year bands)	Clinical trials unit separate to research team

Study	Identification of participants	Payment offered for participation	Randomisation method	Stratification used in randomisation	Randomisation carried out by
Killackey et al. (2008)	Case managers identified suitable participants from their caseloads	No	Computerised block randomisation sequence	None	Independent statistician
Latimer et al. (2006)	Participants were invited to attend two research meetings	No	Not stated	By work history (more than 1 year previous work history at any point), and clinical site	Biostatistician associated with the study
Lehman et al. (2002)	Randomisation by team, not individuals	\$20 for 1 st interview, \$10 for follow-ups and \$15 for final	Pre-prepared sealed envelopes	None	Not stated
Mueser et al. (2004)	Participants were invited to attend two research meetings	No	Computer-generated randomization list	By work history (competitive work in past 5 years or not), ethnicity and gender	Not stated
Wallace & Tauber (2004)	Researcher attended clinical meetings to obtain informed consent	No	Not stated	None	Not stated

Study	Identification of participants	Payment offered for participation	Randomisation method	Stratification used in randomisation	Randomisation carried out by
Kin Wong et al. (2008)	Not stated	No	Random numbers generated by computer	None	Not stated

Table 4.6 Sample size and analysis methods used in 10 RCT's of IPS

Study	<u>Sample Size</u>			Follow-Up Intervals	Researcher Blindness	Statistical analysis methods	Economic evaluation included
	Recruited	Entered	Analysed				
Bond et al. (2007)	296	200 (68%)	187 (94%)	Every 3 months for 2 years	Interviewers not blind, but outcomes corroborated by records	Unknown	No
Burns et al. (2007)	1036	312 (30%)	252 (81%)	6, 12 and 18 months	Researchers could not be blinded	ANCOVA & logistic regression	No
Gold et al. (2006)	228	177 (78%)	108 (61%)	6, 12, 18 and 24 months	Unknown	Unknown	No
Howard et al. (2010)	375	219 (58%)	197 (90%)	12 months	Researcher blind to allocation status	T-tests, Chi-square tests, non-parametric tests. Logistic and linear	Cost-effectiveness analysis

Study	<u>Sample Size</u>			Follow-Up Intervals	Researcher Blindness	Statistical analysis methods	Economic evaluation included
	Recruited	Entered	Analysed				
						regression models fitted.	
Killackey et al. (2008)	41	41 (100%)	41 (100%)	6 months	Unknown	T-tests, chi-square tests and logistic regression	No
Latimer et al. (2006)	438	150 (34%)	125 (83%)	6 and 12 months	Interviewers not blind due to interview questions but did not have a stake in final outcomes	Chi-square, t-tests and mann-whitney tests at baseline. Generalised linear mixed models fitted for outcomes.	No
Lehman et al. (2002)	314	219 (70%)	151 (69%)	6, 12, 18 and 24 months	Unknown	Logistic regression and ANOVA	No
Mueser et al. (2004)	204	182 (89%)	166 (91%)	6, 12, 18 and 24 months	Interviewers not blind to allocation status, but primary measure was self-report	Chi-square, ANOVA and mixed regression models	No
Wallace & Tauber (2004)	Unknown	Unknown	42	Unknown	Unknown	Unknown	No

Study	<u>Sample Size</u>			Follow-Up Intervals	Researcher Blindness	Statistical analysis methods	Economic evaluation included
	Recruited	Entered	Analysed				
Kin Wong et al. (2008)	96	92 (96%)	91 (99%)	6, 12 and 18 months	Unknown	T-tests, non- parametric tests and ANOVA	No

Table 4.7 Primary and secondary employment-related outcomes measured in 10 RCT's of IPS

Study	Primary – Competitive employment	<u>Secondary outcomes</u>					
		No of hours per week	Days worked per week	Salary earned	Type of job	Time to first job	No of jobs / terminations
Bond et al. (2007)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Burns et al. (2007)	Yes	Yes	Yes	No	Yes	No	No
Gold et al. (2006)	Yes	Yes	Yes	Yes	Yes	No	Yes
Howard et al. (2010)	Yes	Yes	Yes	Yes	Yes	No	No
Killackey et al. (2008)	No	Yes	Yes	Yes	No	No	Yes
Latimer et al. (2006)	Yes	Yes	Yes	Yes	Yes	No	No
Lehman et al. (2002)	Yes	Yes	Yes	Yes	Yes	No	No
Mueser et al. (2004)	Yes	Yes	Yes	Yes	Yes	No	No
Wallace & Tauber (2004)	Yes	Yes	No	Yes	Yes	No	No
Kin Wong et al. (2008)	Yes	No	Yes	Yes	Yes	Yes	No

Table 4.8 - Non-vocational outcomes and measurement scales used in 10 RCT's of IPS

Study	Psychiatric symptoms	Quality of life	Self esteem	Social functioning	Job satisfaction	Drug & alcohol use	Resources
Bond et al. (2007)	PANSS	None	None	None	IJSS	AUS & DUS	None
Burns et al. (2007)	PANSS & HADS	LQoLP-EU	None	GAF & GSDS	None	None	None
Gold et al. (2006)	PANSS	QOLI	None	None	None	None	None
Howard et al. (2010)	BPRS	MANSA& CANS	Rosenberg scale	GAF	IJSS	None	CSRI
Killackey et al. (2008)	BPRS	QOLS	None	SOFAS	None	None	None
Latimer et al. (2006)	BPRS	Wisconsin QOL	Self Esteem Rating Scale	GAF	None	AUS & DUS	None
Lehman et al. (2002)	None	None	None	None	None	None	None
Mueser et al. (2004)	PANSS	QOLI	None	GAS	IJSS	AUS & DUS	None
Wallace & Tauber (2004)	None	None	None	None	None	None	None
Kin Wong et al. (2008)	BPRS	WHO	None	None	None	None	None

AUS	Alcohol Use Scale
BPRS	Brief Psychiatric Rating Scale
CANS	Camberwell Assessment of Needs Scale
CSRI	Client Service Receipt Inventory
DUS	Drug Use Scale
GAF	Global Assessment of Functioning
GSDS	General Symptom Distress Scale
HADS	Hospital Anxiety and Depression Scale
IJSS	Indiana Job Satisfaction Scale
LQoLP-EU	Lancashire Quality of Life Profile
MANSA	Manchester Short Assessment of Quality of Life
PANSS	Positive and Negative Symptom Scale
QOLI	Quality of Life Inventory
QOLS	Quality of Life Scale
SOFAS	Social and Occupational Functioning Assessment Scale
WHO	World Health Organisation Quality of Life Scale
Wisconsin QOL	Wisconsin Quality of Life Scale

4.4. Systematic review of cost-effectiveness of supported employment

4.4.1. Introduction

To date, there has not been a systematic review of the cost-effectiveness of supported employment in the UK or elsewhere, and as seen in the systematic review (Crowther et al, 2001) and literature review in section 4.3 and 3.3, the majority of RCT's have not included an economic evaluation. However, economic studies are becoming more common in healthcare evaluations (Drummond et al., 2015) and in many cases an economic evaluation may be published separately or may be performed after the RCT has been completed (as opposed to being part of the trial) (Drummond et al., 2015). The two reviews above used search criteria that focused on RCT's using primary data – secondary analyses of data were excluded – therefore it is possible that if any economic evaluations in the field of supported employment have been carried out over recent years, they may have been missed by these reviews.

A systematic review of the cost-effectiveness of supported employment would identify any economic evaluations in this area that could help inform the design of the economic component of the CAREER study.

4.4.2. Methods

4.4.2.1. Aim and objectives

The overall aim of the systematic review was to identify economic evaluations of controlled studies of supported employment that could be used to inform the design of the economic evaluation in the CAREER study. The two specific objectives were:

- To undertake a systematic review of the cost-effectiveness of supported employment.

- To assess the economic evaluation methods used in located studies and determine whether they would be suitable for the design of the CAREER study.

It was hypothesised that a small amount of studies would be located due to the overall low number of studies with an economic component that were identified in the two literature reviews above.

4.4.2.2. Inclusion criteria

The inclusion criteria for the systematic review were relatively broad in order to locate the maximum number of potentially relevant studies. The criteria can be summarised as follows (further explanation of each is given below):

- Studies – randomised controlled trials published up until year 2010
- Participants – diagnosis of common or severe mental illness, aged 18 or above
- Interventions – supported employment or career intervention
- Outcomes – cost data collected during trial

4.4.2.2.1. Randomised Controlled Trials (RCTs)

Since the CAREER study was to be an RCT, it was necessary for the systematic review to be limited to studies of an RCT design in order to identify relevant methods. The definition of an RCT is:

A parallel group trial which randomises eligible participants to two or more groups, treats according to assignment, and compares the groups with respect to outcomes of interest. Participants are allocated to groups using both randomisation and concealment (Centre for Reviews and Dissemination, 2009).

The search criteria sought to identify any RCT's, including randomised cross-over trials (in which all participants receive the intervention, but the sequence is randomised), and cluster randomised trials (in which clusters of participants are randomised, rather than individuals).

Quasi-experimental and observational studies were excluded because a high quality economic evaluation (comparison of costs and consequences of two or more alternative interventions) is not possible without a control group, and lack of randomisation can limit generalisability of the economic evaluation (Petrou & Gray, 2011).

4.4.2.2.2. Diagnosis of mental illness

Studies of people with mental illness were included in the review criteria as the CAREER study was designed in a mental health treatment setting. Although the treatment setting was an IAPT service for people with common mental illness (depression and anxiety disorders), it had already been identified that no RCT's of employment support have been conducted with this client group to date, so it was necessary to extend the definition to people with a diagnosis of common or severe mental illness. A comprehensive definition of mental illness was therefore used to capture the broadest possible range of studies. The following categories from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) were included in this broad definition, on the basis that people with these disorders might be treated at an IAPT service or community mental health team (CMHT) in the UK and the setting may therefore be relevant to the CAREER study:

- Schizophrenia and other psychotic disorders
- Mood disorders
- Depressive disorders
- Bipolar disorders
- Anxiety disorders
- Adjustment disorders
- Personality disorders

Other mental disorders that usually require more specialist interventions than those provided in IAPT services or CMHT's were excluded on the basis that the study setting would not be relevant to the design of the CAREER study. This included the following disorders: dementia and other cognitive disorders, substance-related disorders, sexual and gender identity disorders, eating disorders, and sleep disorders.

Studies that included people with physical or learning disabilities were not excluded from the review unless the intervention was delivered solely to this client group and no mental health diagnosis was present.

4.4.2.2.3. Aged 18 or above

Studies of interventions designed for people of non-working age were deemed inappropriate for this review, as the CAREER study was aimed at adults aged 18 or above. There are many school or college based career services in the UK for children and adolescents, however any evaluations of these services would be irrelevant to the design of the CAREER study as they are not in a healthcare setting, therefore a decision was made to exclude children and adolescents (e.g. people under the age of 18) from the review. Limiting to adults of working age also meant that studies would be more likely to include paid employment as a primary or secondary outcome (as opposed to adults of non-working age where education or training may be the key outcome of interest). A maximum age restriction was not included in the search criteria because there is no upper limit to working age in the UK, however any interventions designed specifically for people in retirement were excluded as the primary outcome of these studies would not be competitive employment.

4.4.2.2.4. Employment or career intervention

The review aimed to identify all studies of supported employment interventions, such as IPS, which is the most similar to the ICM intervention in the CAREER study. Studies of other vocational rehabilitation methods such as Clubhouse models or pre-vocational training were excluded because they do not include individually-tailored support from an employment adviser or similar, and the costing of the intervention is therefore likely to be quite different to the costing required in the CAREER study. The broad search term of 'supported employment' was therefore used in the inclusion criteria for the review.

4.4.2.2.5. Cost and outcome data collected during trial

As the review aimed to identify studies with an economic evaluation, it was limited to only include studies that reported and analysed cost *and* outcome data. Studies that reported one of these types of data but not both, such as cost of illness (also known as burden of illness) studies, or those that did not analyse the data, such as cost-outcome descriptions, were excluded from the review as they were not full economic evaluations. All types of economic evaluation – cost-benefit, cost-consequence, cost-effectiveness, cost-minimisation and cost-utility analysis were included in the review, as they could all be relevant to the design of the CAREER study.

4.4.2.3. Exclusion criteria

4.4.2.3.1. Non English language studies

Only studies published in English were included in the review because there were no resources available to translate from other languages. There were no other exclusion criteria.

4.4.2.4. Search strategy

4.4.2.4.1. Electronic databases

The NHS Economic Evaluation Database was searched for relevant studies but returned no results. Three electronic biomedical and psychological databases were then searched: MEDLINE, EMBASE and PsycINFO. Search strategies for the three databases are contained in Appendix 2. The following search criteria were used in each search strategy:

Randomised controlled trial

The Cochrane Schizophrenia Group's search strategy for randomised controlled trials was used to identify studies of this method type (Higgins & Green, 2011).

Supported employment intervention

Various terms for supported employment (Crowther et al, 2001) were included in the search, including: support\$, employ\$, work\$ and (individual placement adj2 support). Where available, the Medical Subject Heading (MeSH) term for Supported Employment was also used. These search terms were all limited to title and abstract to reduce the amount of irrelevant studies where employment or career outcomes might be mentioned but there was no employment or career intervention.

Mental disorders

Relevant MeSH terms were used to search for mental disorders. For EMBASE, the indexing term was Mental Disease and for MEDLINE and PsycINFO it was Mental Disorders. The search exploded all sub-headings of the term, in order to widen the search as far as possible.

Cost data

The broad search terms of cost\$ and economic\$ (limited to title and abstract) were included to identify studies that had a clear focus on economic evaluation.

Limitations

All electronic searches were limited by the following options:

- NOT (animal/ not human/)
- English Language

4.4.2.4.2. Testing of electronic search strategies

Before finalising the search strategies, key papers known to the author were checked for inclusion, and reference lists from existing systematic reviews relevant to the subject area were also checked. Hand searching of journals was not carried out as the range of journals where relevant studies might be published was too vast.

4.4.2.5. Assessment of abstracts for inclusion

All references were downloaded to EndNote and duplicates were removed. The titles of all abstracts were scanned for obvious exclusion criteria and removed as necessary, then the remaining abstracts were double rated by two reviewers (the author and author's PhD supervisor) for inclusion.

4.4.2.6. Data extraction

A data extraction sheet was designed to systematically retrieve information from each included study (reproduced in Appendix 3). It included the following fields:

4.4.2.6.1. Reference details

- Reference Manager ID number
- First author name
- Year
- Article Title
- Citation
- Type of publication
- Country of origin

4.4.2.6.2. Study characteristics

- Aims and Objectives were recorded categorically as: effectiveness/efficacy; cost-effectiveness; and assessment of outcome.
- Study design was recorded categorically as: experimental (RCT or quasi-experimental), or observational (cohort, cross-sectional, controlled before and after, uncontrolled before and after, case series, expert opinion, or other).
- Inclusion criteria and exclusion criteria were recorded as string variables.
- Recruitment method was recorded as a string variable.
- Allocation concealment method was recorded as a string variable.

4.4.2.6.3. Participant characteristics (baseline)

- Mean age in years (planned and actual)
- Gender proportion (% male / % female) (planned and actual)
- Ethnicity proportion (% white origin, % black and minority ethnic (BAME) origin) (planned and actual)
- Diagnosis coded by ICD-10 category.
- Occupational status coded categorically as: employed, unemployed or student.
- Time since last employment was recorded as a string variable.

4.4.2.6.4. Sample size

- Target sample size in each group
- Number recruited in each group
- Number excluded in each group
- Number analysed in each group

4.4.2.6.5. Interventions

Details about the experimental intervention/s and control intervention/s were recorded as string variables, under the following headings:

- Title
- Provider
- Setting
- Description
- Frequency
- Length
- Model

4.4.2.6.6. Outcome Measures

Primary and other outcome measure details were recoded as string variables, under the following headings:

- Outcome measure
- Description of outcome
- Measurement tool used
- Unit of measurement
- Duration of follow-up was recorded in two variables, one to record the number (e.g. two) and the other to record the unit of measurement (weeks, months or years).

4.4.2.6.7. Analysis

- The type of analysis used was recorded as a string variable.
- Results of the study analysis were recorded as a string variable.

4.4.2.6.8. Economic evaluation

- Cost data reported (yes/no).

- Resource use data reported (yes/no).
- Financial year.
- Method of economic evaluation was recorded categorically (cost-effectiveness, cost-utility, cost-benefit, cost-consequences, cost-offset, cost-minimisation, cost study).
- Cost perspective was recorded categorically and more than one category could be selected (intervention; hospital services; primary health services; all health services; all health & social services; all health, social & education services; all health, social and non-statutory services; all health, social, education and non-statutory; criminal justice; family/carer/patient; productivity losses; other).
- Method of measuring resource use was recorded as a categorical variable and more than one category could be selected (service use schedule, patient diary, records, literature, expert opinion).
- Method of valuing resources was recorded as a categorical variable and more than one category could be selected (direct valuation, national unit costs, prices/charges, literature).

4.4.2.7. Data analysis

The aim of this systematic review was to identify methods used in economic evaluations of employment or career interventions, to inform the design of the ICM study. It was not intended to synthesise the evidence contained within the studies, so the data analysis was purely descriptive.

Quality assessment was carried out using the Drummond economic evaluation critical appraisal checklist (Drummond et al, 2005).

4.4.3. Results

4.4.3.1. Studies located

The electronic searches on EMBASE, MEDLINE and PsycINFO retrieved 64 abstracts. All abstracts were downloaded into EndNote and de-duplicated, leaving 38 abstracts, which were then double-rated. A further 31 abstracts were

removed due to meeting one or more of the exclusion criteria, and full-text papers were then obtained for the remaining seven papers. A further four studies were then removed (one was not an employment or career intervention, and three did not include cost data). This left three papers for full review (Clark et al, 1998; Dixon et al., 2002; Howard et al., 2010)

4.4.3.2. Characteristics of included studies

The three included studies were published in three different journals over a 12-year period: The Journal of Behavioural Health Sciences and Research (1998), Psychiatric Services (2002), and the British Journal of Psychiatry (2010). Two studies took place in the USA (Clark et al., 1998; Dixon et al., 2002), and the third was carried out in the UK (Howard et al., 2010). The basic characteristics of the studies are presented in Table 4.9.

Two of the studies were an economic evaluation and one of the studies was a clinical evaluation with an economic component. All three studies used IPS as the experimental intervention however the control conditions differed: two studies used traditional vocational rehabilitation services, and one study used pre-vocational training as the control intervention. All intervention and control conditions were carried out in community settings.

Diagnosis of severe mental illness and at least two years of impaired functioning was a key inclusion criterion for all three studies. Likewise, unemployment status was essential in all three studies; one study required a period of unemployment of at least 3 months, whereas the other two did not specify the length of unemployment. Two of the studies stated an age range: 18-65 and 20-65.

Where reported, the mean age of study participants ranged from 37 to 38.6 years, the proportion of females ranged from 32% to 48%, and the proportion of people from ethnic minority groups ranged from 5% to 62%. The psychiatric diagnoses of participants in all three studies included schizophrenia, schizotypal and delusional disorders, and mood (affective) disorders; two studies also included participants with disorders of adult personality and behaviour.

The final follow-up period in one study was 12 months, and 18 months in the two other studies. The primary outcome measure in all three studies was employment; two of which defined this as 'competitive' employment.

Table 4.9 - Characteristics of included studies

Study	Intervention	Control	ICD-10 Codes	Mean age	% of females	% of ethnic minorities	Time to final follow-up
Clark et al. (1998)	IPS	Pre-vocational training	F2, F3 and F6	37	52%	5%	18 months
Dixon et al. (2002)	IPS	Vocational rehabilitation	F2, F3 and F6	Not stated	Not stated	Not stated	18 months
Howard et al. (2010)	IPS	Vocational rehabilitation	F2 and F3	38.6	32%	62%	12 months

Table 4.10 shows details of the economic methods used. In terms of method of economic evaluation, one was a cost-benefit evaluation and the other two were cost-effectiveness evaluations. The economic perspective differed between studies: one used an 'all health services' perspective, one used 'societal, government and individual', and one used 'local economy, health and social services'. All three studies measured earnings from employment as a secondary outcome, and also collected health and vocational rehabilitation resource use data. Participant records were used in all three studies to gather data, and two of the studies also used a service use schedule to collect additional data. All studies used national published unit costs, two additionally used direct valuation, and one additionally used unit costs derived from the literature.

In the cost benefit study, the IPS intervention had higher benefits from the society and government perspective, and the control condition had higher benefits from the individual perspective, but neither were statistically significant. Although employment outcomes were higher for the IPS condition in both cost-effectiveness studies, there was no statistically significant difference in earnings between the intervention and control groups.

Table 4.10 - Economic methods used in included studies

Study	Method of economic evaluation	Perspective	Data collection method	Resource data collected	Unit cost valuation method	Benefits	ICER
Clark et al. (1998)	Cost-Benefit	Societal, Government and Individual	Participant records	Use of health and vocational rehabilitation services (no of hours)	Direct valuation plus national published unit costs	Earnings	No
Dixon et al. (2002)	Cost-Effectiveness	All health services	Participant records plus service use schedule	Use of mental health and vocational rehabilitation services (no of hours)	Direct valuation plus national published unit costs	Earnings	Yes
Howard et al. (2010)	Cost-Effectiveness	Local economy, and health & social services	Participant records plus service use schedule	Use of health and social care services (no of contacts)	Literature plus national published unit costs	Earnings	No

4.4.3.3. Quality of economic evaluations

The performance of each study on the economic evaluation critical appraisal checklist (Drummond et al., 2005) is shown in Table 4.11. The ten questions and all sub-questions from the checklist are shown below, including an explanation of each question, and answers to the sub-questions for each of the three studies.

1. Was a well-defined question posed in answerable form?

A well-defined question should state the alternatives being compared and the perspective from which the comparison is being made. The question should also state both the costs and effects to be measured and the time period. There are four sub-questions relating to this question:

1.1. Did the study examine both costs and effects of the services over an appropriate time horizon?

All three studies examined intervention and service use costs over the study period, which was either 12 months (Howard et al, 2010), or 18 months (Clark et al 1998; Dixon et al 2002). Twelve and 18 month follow-ups are relatively long in the context of a clinical trial and are long enough to capture return to work and other employment outcomes of interest to studies focusing on supporting people back to work. All three studies examined effects: Clark et al (1998) examined income, Dixon et al (2002) examined three different types of effects (hours of work, weeks of work, and earnings), and Howard et al (2010) examined number of participants in competitive employment.

1.2. Did the study involve a comparison of alternatives?

All three studies involved a comparison of alternatives. IPS was compared with Group Skills Training (GST) (Clark et al, 1998), Enhanced Vocational Rehabilitation (EVR) (Dixon et al, 2002), and Treatment As Usual (TAU) (Howard et al, 2010).

1.3. Was a perspective for the analysis stated and was the study placed in any particular decision-making context?

None of the studies were placed in any specific decision-making context, however two of the studies (Clark et al, 1998; Dixon et al 2002) discussed the importance of evaluating the cost-effectiveness of IPS as public health financing departments need to know whether funding IPS is an efficient use of resources. Clark et al (1998) examined cost benefit ratios from three different perspectives: societal, government and individual. Dixon et al (2002) took the perspective of a 'hypothetical single payer of all treatment costs' due to the care system involving multiple public payers and agencies. The implied perspective in Howard et al's (2010) study was health and social care due to the type of resource use data that was collected.

1.4. Were the patient population and any relevant subgroups adequately defined?

The patient populations were adequately defined in all three studies, and the same population was used in each: adults with severe mental illness who wanted to enter competitive employment.

Conclusion: All three studies posed a well-defined question in answerable form.

2. Was a comprehensive description of the competing alternatives given?

A comprehensive description of the competing alternatives is essential so that readers can identify whether any relevant alternatives have been omitted, and also so they can judge whether the programmes are applicable to their own settings and replicate them. There are three sub-questions relating to this question:

2.1. Were any relevant alternatives omitted?

It is not clear whether any relevant alternatives were omitted because none of the study authors discussed this. Although some justification was given for choosing

the comparison groups in each study, it is not clear whether the authors considered other alternatives.

2.2. Was a 'do nothing' alternative considered?

None of the authors of the three studies mentioned whether a 'do nothing' alternative was considered. However, 'do nothing' is unlikely to have been relevant in these studies, given the existence of traditional vocational services in the vast majority of high income countries.

2.3. Were relevant alternatives identified for the patient subgroups?

It would appear that the alternatives of GST (Clark et al, 1998) and EVR (Dixon et al, 2002) were relevant for the populations in the study, as they were likely to be the next closest intervention to IPS. In the Howard et al (2010) study, the control treatment was TAU – described as '33 existing services available in the area', which is a relevant alternative to the intervention.

Conclusion: Although the range of potential alternatives was not provided, the description of the alternatives chosen in all three of the studies appeared to be comprehensive and relevant to the population.

3. Was the effectiveness of the programmes or services established?

An economic evaluation should include an assessment of the effectiveness of the intervention. If the evaluation of effectiveness was carried out in a previous clinical study, the methodological details and results of this study should be provided. Effectiveness should be established either through a randomised controlled trial, or a systematic review of multiple studies. There are three sub-questions relating to this question:

3.1. Was this done through a randomized controlled clinical trial?

All three studies included a randomised controlled clinical trial; two of the studies (Clark et al 1998; Dixon et al 2002) were an economic evaluation of a previously

reported clinical trial, and one study (Howard et al, 2010) included the economic evaluation within the results of the clinical trial.

3.2. Were effectiveness data collected and summarized through a systematic overview of clinical studies?

None of the studies involved a systematic overview of clinical studies.

3.3. Were observational data or assumptions used to establish effectiveness? If so, were any potential biases recognised?

All three studies used observational data over the follow-up period to establish effectiveness, however one study (Clark et al, 1998) involved a before-and-after comparison which included some assumptions for pre-intervention data that was not available.

Conclusion: Although some assumptions were used in one of the studies (Clark et al, 1998), all three studies established effectiveness of the intervention compared to the alternative condition at follow-up using observational data collected in a randomised controlled trial.

4. Were all the important and relevant costs and outcomes for each alternative identified?

Relevant costs and outcomes are determined by the study perspective and the description of the alternatives, and all those that are potentially relevant should be identified, with justification given for the ones chosen for the evaluation. There are three sub-questions relating to this question:

4.1. Was the range wide enough for the research question at hand?

All three studies included costs for intervention and healthcare service use, however the range in two studies (Clark et al 1998; Dixon et al 2002) was restricted to mental health and vocational rehabilitation only; they did not include other healthcare costs. Clark et al (1998) did not include productivity losses in

their societal perspective, although they included earnings as an outcome. Howard et al (2010) included all relevant health and social care service use costs, and also measured health and quality of life outcomes, so it was therefore the only study that included a wide enough range for the research question.

4.2. Did it cover all relevant perspectives?

As IPS is a healthcare intervention which is designed to improve competitive employment outcomes, a societal perspective should be taken in addition to a healthcare perspective. An individual perspective may also be useful if the participant is expected to pay for the IPS treatment, although this was not the case in any of the included studies. Whilst one study took each of these three perspectives (Clark et al, 1998), another study took only a healthcare perspective (Dixon et al 2002), and the perspective in the third study (Howard et al, 2010) was health and social care.

4.3. Were capital costs, as well as operating costs, included?

All studies stated that they used established 'unit costs' (either from nationally published unit costs or from audited accounts). Howard et al (2010) used PSSRU unit costs which include capital and operating costs, however it was unclear whether the unit costs in the other two studies included capital costs as well as operating costs.

Conclusion: All three studies took relevant perspectives but only the Howard et al (2010) collected a broad enough range of cost and outcome data for the perspective chosen.

5. Were costs and consequences measured accurately in appropriate physical units prior to valuation?

It is important for costs and consequences to be identified and measured before valuation occurs, and the units (e.g. hours, weeks, etc.) should be relevant. There are three sub-questions relating to this question:

5.1. Were the sources of resource utilization described and justified?

Participant reports were used in two of the studies (Clark et al 1998; Howard et al 2010) to measure resource utilization, corroborated with mental health centre records in one of the studies (Clark et al 1998). In the other study (Dixon et al 2002), a combination of daily staff service use logs, and healthcare records (medical and psychological assessments undertaken, and payments made to individual vendors for services provided) were used to measure resource use. All sources were described in sufficient detail however little justification was given, apart from Clark et al (1998) who stated that participant reports were necessary because no other data was available for the pre-intervention period. All resource data was measured in terms of time (e.g. hours, days, etc.) which is appropriate for the costing of intervention and healthcare service use.

In terms of outcomes, earnings and time in employment were measured through a mixture of participant interviews and employment service staff reports in all three studies. The units used (dollars, pounds, hours, and weeks) were relevant for the type of measurement. Health related measures in Howard et al were measured using standard assessment scales.

5.2. Were any of the identified items omitted from measurement? If so, does this mean that they carried no weight in the subsequent analysis?

It is not clear whether any of the identified items were omitted from measurement as this was not stated in any of the studies.

5.3. Were there any special circumstances (e.g. joint use of resources) that made measurement difficult? Were these circumstances handled appropriately?

As it was unclear whether capital costs were included, it is not possible to know whether there were any special circumstances (such as the two alternatives sharing the same building) which may have made measurement difficult. This issue was not mentioned in any of the three studies.

Conclusion: It would appear that costs and consequences were measured as accurately as possible in appropriate units prior to valuation, in all three studies.

6. Were the costs and consequences valued credibly?

The source and method of valuation of all costs and consequences should be clearly explained in an economic evaluation, and costs should be valued in units of local currency in the same base year. There are four sub-questions relating to this question:

6.1. Were the sources of all values clearly identified?

The sources of all values were clearly identified in all three studies. In the Clark et al (1998) study, hospital costs were obtained from Medicare cost reports, community service costs were obtained from independently audited cost reports, and vocational rehabilitation costs were obtained from program costs audited by an independent accounting firm; all costs were reported in 1992 dollars. Similarly, in the Dixon et al (2002) study, hospital costs were obtained from Medicare cost reports, and community service costs were obtained from the agency's audited financial statements, however the unit cost for vocational rehabilitation services were calculated in a different way to the Clark et al (1998) study: overall costs for the IPS service over two years were divided by the number of hours spent with clients, and for EVR, the unit costs were calculated as a sum of three costs: the cost of the coordinator (including overheads), the cost to the Rehabilitation Services Administration for services paid for, and the cost of medical and psychological assessments undertaken, divided by the number of client hours; all costs were reported in 1995 dollars. Unit costs for all hospital and community costs in the Howard et al (2010) study were obtained from a book of nationally published unit costs, and the cost of the IPS employment specialist was based on the hourly cost of the employment worker, including an estimate of indirect time (time spent in non-face-to-face activities such as training, supervision, administration etc.).

6.2. Were market values employed for changes involving resources gained or depleted?

None of the studies mentioned any changes involving resources gained or depleted. All studies used costs that are likely to approximate market values.

6.3. Where market values were absent or market values did not reflect actual values, were adjustments made to approximate market values?

As noted, all studies used costs that approximate market values, so no adjustment was necessary.

6.4. Was the valuation of consequences appropriate for the question posed?

Valuation of health states was not necessary in any of the studies as none had used a measure such as QALYs in the economic analysis. Clark et al (1998) and Dixon et al (2002) valued income in US dollars, based on information given by participants in the Employment and Income Review (completed during research interviews). Howard et al (2010) included standardised outcome measures that did not require valuation.

Conclusion: It would appear that costs and consequences were valued credibly in all three studies.

7. Were costs and consequences adjusted for differential timing?

An economic evaluation involves the comparison of two alternatives at one point in time, however the costs and consequences may have different values in the future and adjustments should therefore be made to take account of this by discounting future costs and consequences (commonly those falling after the first 12 months) to the present value. There are two sub-questions relating to this question:

7.1. Were costs and consequences that occur in the future 'discounted' to their present values?

This would not apply to the Howard et al (2010) study as the length of follow up was only 12 months. The length of follow-up in the other two studies (Clark et al 1998; Dixon et al 2002) was 18 months however there was no mention of discounting future costs or consequences to their present values, in either of these studies.

7.2. Was any justification given for the discount rate used?

This question is not applicable (see answer 7.1.).

Conclusion: Where applicable, the costs and consequences were not adjusted for differential timing.

8. Was an incremental analysis of costs and consequences of alternatives performed?

The incremental approach to comparing costs and consequences involves examining the additional costs of one alternative over another, compared with the additional consequences. This type of analysis is recommended in order to make a meaningful comparison between the two alternatives. There is only one sub-question relating to this question:

8.1. Were the additional (incremental) costs generated by one alternative over another compared to the additional effects, benefits or utilities generated?

Two of the studies (Clark et al 1998; Howard et al 2010) did not conduct an incremental analysis of costs and consequences. Dixon et al (2002) calculated incremental cost effectiveness ratios (ICERs) for competitive employment outcomes and also for total wages.

Conclusion: Only the Dixon et al (2002) study performed an incremental analysis of costs and consequences.

9. Was allowance made for uncertainty in the estimates of costs and consequences?

There will always be uncertainty with estimates used in an economic evaluation, so it is important for the type of uncertainty to be identified and the appropriate allowance made. There are four sub-questions relating to this question:

9.1. If patient-level data on costs or consequences were available, were appropriate statistical analyses performed?

Patient-level data on costs and consequences was available in all three studies. The main analysis in Dixon et al's (2002) study included an adjustment for pre-study hospitalization rate, however they conducted a sensitivity analysis that adjusted for vocational intervention, age, gender, race, substance abuse, and a schizophrenia diagnosis, in addition to the pre-study hospitalization rate.

9.2. If a sensitivity analysis was employed, was justification provided for the form of sensitivity analysis employed and the ranges or distributions of values (for key study parameters)?

Dixon et al (2002) carried out a sensitivity analysis, as described above, but did not provide a justification for the type of sensitivity analysis used, or why those baseline variables were chosen. The other two studies did not carry out any sensitivity analyses.

9.3. Were the conclusions of the study sensitive to the uncertainty in the results, as quantified by the statistical and/or sensitivity analysis?

The conclusions in all three studies were sensitive to the uncertainty in the results. Clark et al (1998) identified potential biases due to time-related factors (a newly introduced Medicaid payment system may have accounted for some of the decreases in hospital costs post-intervention). Dixon et al (2002) recognised that the costs may have been unfairly biased against IPS due to large hospitalisation costs in this group at baseline. Howard et al (2010) identified that a small number of outliers skewed the results. All three authors stated that it was not possible to draw firm conclusions from the analysis due to the small sample size and high level of variability between participants in the study.

9.4. Was heterogeneity in the patient population recognised, for example by presenting study results for relevant subgroups?

None of the studies presented study results for any relevant subgroups.

Conclusion: None of the studies made a sufficient allowance for the uncertainty in estimates of costs and consequences.

10. Did the presentation and discussion of study results include all issues of concern to users?

The main issue of concern to users is likely to be whether or not the intervention is cost-effective and therefore a cost-effectiveness or cost-benefit ratio should be presented, however enough information should also be available to enable the user to interpret the ratio correctly. There are six sub-questions relating to this question:

10.1. Were the conclusions of the analysis based on some overall index or ratio of costs to consequences (e.g. cost-effectiveness ratio)? If so, was the index interpreted intelligently or in a mechanistic fashion?

The conclusions in one of the studies (Howard et al 2010) were not based on a ratio of costs to consequences. As mentioned above, Dixon et al (2002) presented an ICER, and this appeared to be interpreted intelligently. Clark et al (1998) presented an average cost-benefit ratio for each of the three perspectives in their study, which again appeared to be interpreted intelligently.

10.2. Were the results compared with those of others who have investigated the same question? If so, were allowances made for potential differences in study methodology?

None of the studies compared their results with others who had investigated the same question.

10.3. Did the study discuss the generalisability of the results to other settings and patient/client groups?

Clark et al (1998) highlighted that the results may not be replicated in other settings – for instance where IPS is implemented in a public setting, where there is a larger proportion of ethnic minorities, or where there is a lower proportion of participants with previous work experience or qualifications. Dixon et al (2002) suggested that the costs and effects of EVR might be lower in actual practice so the comparison between EVR and IPS might not produce the same results. Howard et al (2010) point out that the large and diverse sample could increase the generalisability of results however the IPS programme was provided by an external agency where fidelity to the IPS model was low, so this may have impacted on the results.

10.4. Did the study allude to, or take account of, other important factors in the choice or decision under consideration?

No other important factors were mentioned in either of the studies.

10.5. Did the study discuss issues of implementation, such as the feasibility of adopting the ‘preferred’ programme given existing financial or other constraints, and whether any freed resources could be redeployed to other worthwhile programmes?

All studies said that their results were inconclusive, so decisions about implementation should not be based on these results alone.

10.6. Were the implications or uncertainty for decision-making, including the need for future research, explored?

All three studies highlighted the uncertainty for decision-making and suggested future research in order to further explore the costs and consequences of IPS.

Table 4.11 Performance of studies on the economic evaluation critical appraisal checklist

	Clark et al, 1998	Dixon et al, 2002	Howard et al, 2010
1. Was a well-defined question posed in answerable form?	Yes	Yes	Yes
2. Was a comprehensive description of the competing alternatives given?	Yes	Yes	Yes
3. Was the effectiveness of the programme or services established?	Yes	Yes	Yes
4. Were all the important and relevant costs and consequences for each alternative identified?	No	No	Yes
5. Were costs and consequences measured accurately in appropriate physical units?	Yes	Yes	Yes
6. Were the cost and consequences valued credibly?	Yes	Yes	Yes
7. Were costs and consequences adjusted for differential timing?	No	No	N/A
8. Was an incremental analysis of costs and consequences of alternatives performed?	No	Yes	No
9. Was allowance made for uncertainty in the estimates of costs and consequences?	No	No	No
10. Did the presentation and discussion of study results include all issues of concern to users?	Yes	Yes	No

None of the studies received a 'yes' for all items. The highest scoring studies were Dixon et al (2002) with 7 out of 10, then Howard et al (2010) with 6 out of 9 (one category was not applicable) then Clark et al (1998) with 6 out of 10.

4.4.4. Discussion

4.4.4.1. Scope of the review

This systematic review aimed to locate all RCT's of supported employment with an economic component, in order to identify suitable methods for the design of the CAREER study. The remit was broad in that any RCT's of supported employment in mental health were included, however the range of included studies was limited to those that only included analysis of both cost and outcome data. As the total number of high quality RCT's of supported employment worldwide is low, there was always likely to be a small amount of papers located for this review.

4.4.4.2. Usefulness of included studies

Each of the three included studies were useful in identifying methods that could be replicated in the CAREER study. Firstly, the fact that only three studies were located indicates a strong need for more economic evaluations to be carried out in this area. All of the studies were for people with severe mental illness, which also highlights a gap in evidence for people with common mental illness such as depression or anxiety disorders.

All of the studies compared the costs of the experimental and control interventions as well as the cost of health and social care service use, and used reduction in resource costs as outcomes for the analysis. The data collection methods were similar in each study, combining the use of participant records and service use inventories to collect cost data, and participant interviews to collect employment data. Interestingly, each study included a quality of life measure as a clinical outcome, but none of the studies looked at valuing quality of life (e.g. through the use of QALY's) in the economic analysis.

4.4.4.3. Conclusion

The strength of these studies were that they all collected relevant cost data that could be used in an economic evaluation, and costs were valued using appropriate sources, so similar methods could be used in the CAREER study. However outcome data was not appropriate.

Several limitations have also been revealed, including lack of clarity about hypotheses and perspectives, and the restricted generalisability of results to practical settings. The CAREER study should therefore seek to improve on these studies by stating a clear hypothesis for the economic evaluation and choosing an appropriate perspective for the analysis, which will enable the results to be useful for decision-makers about the implementation of ICM in a practical setting.

5. Methods

5.1. Aim, Objectives and Hypotheses

5.1.1. Aim of the Study

The overall aim of the CAREER study was to test the effectiveness and cost-effectiveness of the Individual Career Management (ICM) intervention compared to treatment as usual (TAU) in a randomised controlled trial (RCT).

5.1.2. Study Objectives

There were three study objectives:

Objective 1: To establish whether ICM was effective in improving employment outcomes at 6-months follow-up for people with common mental illness compared to TAU.

Objective 2: To establish whether ICM was effective in improving health and quality of life outcomes at 6-months follow-up for people with common mental illness compared to TAU.

Objective 3: To establish whether ICM was cost-effective at 6-months follow-up compared to TAU, as a result of improvements in quality of life and reductions in productivity losses.

5.1.3. Hypotheses

5.1.3.1. Primary Hypothesis

The primary hypothesis for the study was:

“A significantly greater percentage of individuals in the ICM group will be in competitive employment during the follow-up period compared to those in the TAU group”.

Consistent with previous studies of supported employment (e.g. Howard et al., 2010), the following definition of competitive employment was used:

A job paying at least the national minimum wage, in a mainstream setting not set aside for people with disabilities or mental health conditions and not owned by the ICM service.

Competitive employment must have been attended by the participant for 1 day or more during the follow-up period. Participants that were employed but were absent from work (e.g. off sick) for the whole follow-up period were not counted as being in competitive employment.

5.1.3.2. Secondary Hypotheses

At the end of the follow-up period, in comparison to participants in the TAU group, those in the ICM group would:

1. Be more likely to be currently engaged in occupational activity (including employment, education, training or volunteering);
2. Be more likely to have engaged in occupational activity during the follow up period;
3. Have a higher level of career search efficacy;
4. Have a higher level of return to work efficacy;
5. Have a higher level of social functioning;
6. Have a higher level of self-esteem;
7. Have a higher level of quality of life;
8. Have a lower level of anxiety;
9. Have a lower level of depression;

And if they were in employment, they would:

10. Start employment sooner (shorter 'time to employment')
11. Be employed for a significantly longer period
12. Have a higher level of occupation (job type)
13. Work a higher number of hours per week
14. Have a higher annual salary
15. Have a lower number of job terminations

16. Have a higher level of job satisfaction
17. Have a lower level of absenteeism (absence from work)
18. Have a lower level of presenteeism (poor productivity at work)

And the ICM intervention would:

19. Be cost-effective compared to TAU, as a result of better quality of life and reductions in productivity losses.

5.2. Study Design

5.2.1. Randomised Controlled Trial

The CAREER study was a randomised controlled trial (RCT) of two parallel groups. In an RCT, participants are randomly assigned to two or more groups to test the effects of a treatment or intervention. The aim of random allocation is to minimise bias by maximising the chances that the two groups are similar in all respects apart from the intervention received. An RCT is the most rigorous method of testing whether a treatment has a direct effect on outcome and resource use (Sibbald & Roland, 1998) and was therefore the most appropriate method to evaluate the effectiveness and cost-effectiveness of ICM.

5.2.2. Research Team

The Research Team consisted of the following roles:

Principal Investigator (author of this PhD)

The principal investigator was responsible for the overall design of the CAREER study, overseeing the research process, analysing the data, and managing the research team staff. In this study, the principal investigator was also the ICM Service Manager, so they were also responsible for managing the staff that delivered the ICM intervention (e.g. career coaches).

Research Data Manager

The research data manager, who was the administrator for the ICM service, was responsible for overseeing the data collection process and ensuring that all data was collected in accordance with the study protocols. The research data manager was also responsible for day-to-day supervision of the research assistants.

Research Assistants

The research assistants were responsible for conducting baseline and follow-up interviews with study participants to collect outcome data. In this study, the research assistants were unpaid volunteers – a mixture of previous ICM service users, postgraduate students, and career coaches that were independent to the study.

Career Coaches and Lead Career Coach

The ICM career coaches and lead career coach were not part of the research team. They were responsible for delivering the ICM intervention to patients in accordance with the ICM Intervention Manual. Two of the ICM career coaches carried out baseline interviews with study participants to collect outcome data at the start of the study due to lack of availability of research assistants. No follow-up interviews were carried out by ICM career coaches.

5.2.3. Treatment Groups

Randomisation was made to two groups: an ICM group and a TAU group. Participants in the ICM group received the ICM intervention plus IAPT treatment as usual (TAU), as described in Chapter Three. Participants in the TAU group received IAPT TAU only. The allocation ratio was equal (1:1) for the two groups.

5.2.4. Random Allocation

5.2.4.1. Randomisation method

Participants were allocated to groups using a computerised block randomisation sequence generator provided by the King's Clinical Trials Unit at King's College London.

5.2.4.2. Stratification

The randomisation sequence was stratified by locality team, gender and length of unemployment with a 1:1 allocation using randomly varied size blocks.

Locality team was chosen as a stratification variable to ensure that there was an equal balance of participants from each locality in both groups. There were five locality teams providing the IAPT service in Southwark: North East, North West, South East, South West, and Primary Care North & South. Locality teams differed from each other in terms of staff (each team had a different manager and different therapists), waiting list times, and assessment procedures; some teams used a telephone triage procedure whereas others used a face-to-face full assessment procedure. Stratification by locality team minimised the chance of bias being caused by these factors.

Stratification by gender was important in this study because there is a gender pay gap between men and women in the UK, with women earning less than men in high level positions (Harkness, 1996). Gender has also been used for stratification in other studies of supported employment (Burns et al 2007; Killackey et al., 2008; Mueser et al., 2004).

Duration of unemployment ($\geq$ or $<$ 12 months) was chosen as a stratification variable because a longer length of unemployment can negatively impact on job outcomes (Wan Kasim et al., 2014). Previous supported employment studies have used stratification variables to reduce the potential bias of previous work history, including work in the past 5 years (Burns et al, 2007; Mueser et al., 2004) and more than 1 year's work during lifetime (Latimer et al., 2006). Stratification by duration of unemployment has been less common.

5.2.4.3. Allocation Concealment

The allocation sequence was concealed from all participants and research team staff so it was not possible for participants and staff to know which group participants would be allocated to until after random allocation had occurred. Concealment prevented participants and staff discovering the sequence, as knowledge of the sequence could have led to conscious or unconscious bias in study participation, or could have compromised the integrity of the data collected in the baseline interview. Allocation concealment was vital because attempts to discover the allocation sequence can sometimes be made by participants or staff in clinical trials (Altman & Schulz, 2001). The sequence was generated electronically by members of the King's Clinical Trials Unit, who were not part of the CAREER study research team and therefore not involved in determining eligibility or entry of patients to the study. No patients or staff had access to the computerised sequence generator.

5.2.4.4. Blinding

The CAREER study was a single blind trial. The investigator and follow-up research assistants were blind to treatment allocation group throughout the study, however it was not possible to blind participants, IAPT therapists or ICM career coaches to treatment allocation group after randomisation, as they would need to know which group the participant was allocated to in order to ensure the correct intervention was offered. Open-blinding to participants, therapists and career coaches may have increased the risk of response bias in the study, in which participants may have chosen to drop out of the study if they were allocated to the control group (Bowling, 2014), however several steps were taken to reduce response bias, described in section 5.6.7 below.

Research assistants conducting follow-up interviews were not informed of the participant's treatment allocation group prior to the research assessor interview in order to ensure the trial was 'assessor blind'. Participants were informed by the research assistant at the very beginning of the interview that they must under no circumstances reveal their treatment group during the interview.

No tests of assessor blinding (i.e. asking the research assistant after the interview to guess whether the participant was in the ICM or TAU group) were carried out because this information can sometimes be unreliable; for instance their response could indicate their assumptions about the success of the intervention, rather than failures in the blinding system (Schulz et al., 2010).

5.2.5. Follow-Up Period

Research assessments took place at baseline and six months after trial entry. Follow-up was longer in previous studies of supported employment, including 12 months (Howard et al., 2010; Latimer et al., 2006), 18 months (Burns et al., 2007; Kin Wong et al., 2008) and 24 months (Bond et al., 2007; Gold et al., 2006; Lehman et al., 2002; Mueser et al., 2004). However a shorter follow-up period of 6 months was chosen due to resources constraints: the time limitations of this PhD project and the fact that it was an unfunded study.

5.3. Ethical Approval and Study Registration

NHS Ethics approval for the CAREER Study was received on 12th August 2011. The Research Ethics Committee reference was 11/LO/0765.

The study officially commenced on 1st October 2011 and recruitment of participants began on 17th October 2011. The CAREER Study was registered with clinicaltrials.gov on 14th May 2012 and the ISRCTN register on 21st June 2012.

5.4. Participants

5.4.1. Study Setting

Participants were recruited from the IAPT service in the London Borough of Southwark, which has an estimated population of 302,500 (Office for National Statistics, 2014). 7.4% of residents are unemployed, which is higher than the

national average of 5.7% and London average of 6.6% (Office for National Statistics, 2014).

The IAPT service (called the Southwark Psychological Therapies Service - SPTS) is run by the South London and Maudsley NHS Foundation Trust (SLaM), which provides a range of NHS mental health and substance misuse services in south London (Lambeth, Southwark, Lewisham and Croydon). SPTS was developed in 2008 as one of the first IAPT services in London. The service consists of psychologists, psychotherapists, counsellors, and psychological wellbeing practitioners (PWPs), and offers a full range of treatment options for people with anxiety or depression, within a stepped care model approved by the National Institute of Health and Clinical Excellence (NICE) (see section 5.5.1 below).

Most of the clinical staff are based at the two main SPTS offices in the Maudsley Hospital and Guy's Hospital. In addition, a variety of counsellors and therapists are based in GP surgeries and clinics throughout the Borough. Patients are allocated to locality teams based on the location of their GP.

All IAPT treatment appointments for CAREER study participants took place in offices used by SPTS, either in one of the two hospitals or in GP surgeries in the community. ICM intervention appointments took place in non-NHS settings such as employment services, training centres, cafes, and libraries. All research appointments (e.g. information sessions, baseline interviews, and follow-up interviews) took place at the Maudsley Hospital, at the ICM Service Manager's office. Participants were offered a refund for their travel expenses to and from research appointments but not for treatment appointments.

5.4.2. Inclusion Criteria

Participants were assessed against a list of seven inclusion criteria and were only eligible for the study if they met all of them. A description of the inclusion criteria follows.

1. Received an IAPT assessment and offered IAPT treatment.

The population for this study included people with common mental illness that were eligible for NHS IAPT treatment. This included the following disorders:

- Depression
- Panic Disorder
- Generalised anxiety disorder
- Social Phobia
- Post-Traumatic Stress Disorder (PTSD)
- Obsessive Compulsive Disorder (OCD)

At the time the study was set-up, IAPT treatment was not available to people with severe mental illness such as Psychosis, Bipolar Disorder or Personality Disorder.

To ensure that people who were not eligible for IAPT treatment were screened out, it was decided that all participants must have received an IAPT assessment and been offered IAPT treatment before entering the study.

2. Started IAPT treatment no more than 28 days before entry to the study.

To avoid recruiting people close to recovery and discharge, and therefore unlikely to show benefit from the intervention, participants had to have started IAPT treatment no more than 28 days before study entry. Discussions were held with the SPTS Director to decide on an appropriate cut-off period, and it was decided that a cut-off period of 4 weeks (28 days) from start of IAPT treatment would be used as a participant would be likely to have received no more than 2-3 IAPT treatment sessions within this time. People who had not yet started their IAPT treatment (e.g. those on the waiting list) were included in the study. The start date of IAPT treatment was defined as the date of the first treatment session attended.

3. Gender: Either Male or Female

Both men and women were eligible for inclusion in the study as both have employment rights in the UK and would be eligible for IAPT treatment. There was no reason to exclude any participants based on gender.

4. Age: 18-60 for women; 18-65 for men.

As the primary outcome for this study was paid employment, only participants of working age with full employment rights in the UK were included in the study, which is common in studies of supported employment (Burns et al., 2007; Howard et al., 2010). Although young people can start to undertake part-time paid work from the age of 13 in the UK, full-time work is not permitted until the age of 16 and adult employment rights do not apply until age 18.

When the study was designed, the UK state retirement age was 60 for women and 65 for men, providing a maximum age for the study for both men and women. The UK retirement age was abolished in October 2011, coinciding with the start of the study however the maximum age limits were retained. There was no upper age limit for IAPT treatment, so it was necessary to check each participant's date of birth for eligibility to the study.

5. Legally allowed to work in the UK.

As noted above, participants had to be legally allowed to work in the UK to be eligible for inclusion in the study. Non-UK citizens were therefore required to have a visa that permitted them to undertake paid employment in the UK.

6. Interested in returning to paid employment within 12 months of entering the study.

Given the primary outcome measure of the study, participants were only included if they were interested in gaining/returning to paid employment. It was important to define a time period due to the short term follow-up of this study. People who did not want to return to work within 1 year (for instance, because of personal commitments or training/education) were excluded. A period of 12 months rather than the follow-up length of 6 months was chosen, because the thought of

returning to work within 6 months could deter some people (especially those with anxiety about returning to work). People who wanted to return to unpaid employment (e.g. volunteering) rather than paid employment were excluded.

7. Unemployed or off sick from work for at least two weeks at time of entry to the study.

Most previous studies of supported employment focussed only on unemployed people, and excluded people in paid employment (Burns, et al., 2007; Howard et al., 2010). However, the ICM intervention is designed to help people in employment as well as those that are unemployed, so people who were off sick from work were also included in the CAREER study. People who had been off sick from work for less than two weeks were excluded in order to screen out people who were absent due to a minor illness (e.g. cough or cold).

5.4.3. Inclusion Criteria assessment procedure

The first two criteria (1-2) were assessed by the research data manager who checked the participant's clinical record on the IAPTUS clinical database before booking the baseline interview appointment. Participants that did not meet both of these criteria were excluded from the study and therefore not offered a baseline interview appointment.

The remaining criteria (3-7) were assessed using a Screening Tool at the beginning of the baseline interview appointment. The Screening Tool was completed by each participant and their eligibility was checked by the research assistant conducting the interview. Participants that did not meet all of the criteria were excluded from the study and the baseline interview appointment was terminated. Those that met all of the criteria and gave written consent to participate in the study, continued with the baseline interview.

5.4.4. Sample Size

It was not possible to base the power calculation on previous empirical data because there had been no previous clinical trials of ICM within an IAPT

population in the UK. Audit data from IAPT suggested that approximately 2% of participants return to employment (Glover et al., 2010), so this was chosen as the TAU group estimate. For the ICM group estimate, data was collected from patient records in the ICM service in Southwark. Between December 2008 and September 2010, 164 patients had been offered the pilot intervention in addition to TAU and their employment status after 6 months of starting the intervention was recorded, regardless of whether they completed the intervention. 27 (16%) patients had entered employment, and 137 had either dropped out or not entered employment. It was therefore decided that the ICM group estimate on an intention-to-treat basis would be 16%. To detect a difference in percentage of participants that returned to competitive employment during the follow-up period with a 5% significance level and power of 90%, a sample size of 184 (92 participants per group) was necessary.

Uptake and attrition rates differ greatly across previous studies of employment support. The percentage of patients eligible for study inclusion who agreed to enter the study ranged from approximately 50% (Burns et al., 2007; Latimer et al., 2006) to over 90% (Killackey et al., 2008; Kin Wong et al., 2008). Loss-to-follow-up rates ranged from under 10% (Bond et al., 2007; Killackey et al., 2008; Kin Wong et al., 2008) to over 30% (Gold et al., 2006; Lehman et al., 2002). An average of the rates reported was used to estimate sample size in the CAREER study, giving an estimated entry rate of 65% and loss-to-follow-up rate of 20%. This resulted in a screening target of 353 and recruitment target of 230 (to achieve the follow-up target of 184).

No interim analyses were planned or conducted during the study. The stopping guidelines were that the study should only stop if the intervention ceased to be available (e.g. due to withdrawal of funding). The intervention was available throughout the duration of the study and so there were no reasons for stopping the study.

5.5. Interventions

5.5.1. Treatment as Usual (TAU)

Participants in both groups (TAU and ICM) were offered treatment as usual, which was standard IAPT therapy, a stepped-care model recommended by NICE (NCCMH, 2011). In the IAPT stepped care model, most patients are initially offered low-intensity treatment from a psychological wellbeing practitioner (PWP). This may include: individual facilitated self-help based on the principles of CBT, computerised CBT, a structured group physical activity programme, or a group-based peer support (self-help) programme (NCCMH, 2011).

Many patients recover with low intensity treatment and are then discharged from the service. Those that do not recover are then offered a course of high intensity treatment, delivered by a trained counsellor or clinical psychologist (often referred to as a high intensity therapist). High intensity treatment may include: CBT, interpersonal therapy (IPT), eye movement desensitization reprocessing therapy (EMDR), behavioural activation (BA), behavioural couples therapy, counselling, or short-term psychodynamic therapy. Exceptions to the stepped care rule include people with severe depression or anxiety, or those with Post-Traumatic Stress Disorder (PTSD), for whom high-intensity treatment is recommended in the first instance (Clark, 2011).

All CAREER study participants were given a list of organisations that they could access directly for support with returning to employment. The list was updated every three months to take account of changes in service provision and included: the local Jobcentre Plus offices, local Work Programme providers, and other local employment services or projects. The lead career coach was responsible for creating and updating the list, and they spent time visiting these organisations and maintaining partnerships. The lead career coach was also available to give one-to-one advice to therapists about which organisation they might refer a participant to, if they were unsure.

A protocol was put in place to remind career coaches not to respond to requests for advice about TAU group participants, unless it was related to an organisation they could refer the participant to. If any therapists attempted to ask for further advice about a TAU group participant, the career coach reported this to the research data manager as a breach of protocol. If the therapist did this more

than once, the research data manager would inform the therapist's line manager that they were failing to follow the study protocol and this would be addressed with the therapist in management supervision.

The length of TAU differed between participants and was dependent on a number of factors including the type of treatment offered, engagement with the treatment, frequency of the treatment, and availability of the treatment (i.e. whether there was a waiting list). For instance, some high intensity treatment options might involve weekly face-to-face sessions for twelve weeks, whereas a low intensity treatment option might just involve attending one workshop and a follow-up appointment. Some participants had therefore completed their treatment within the 6-month follow-up, whereas others may have only just started their treatment, and some were still on a waiting list for treatment.

5.5.2. Individual Career Management (ICM)

Participants in the ICM group only were offered Individual Career Management (ICM) in addition to all elements of treatment as usual. A full description of the ICM intervention is found in Chapter 3.

The ICM intervention was delivered by a team of career coaches. At the time of designing the study, the team consisted of one lead career coach, three career coaches and one employment coordinator. However local NHS funding cuts just before the start of the study resulted in the employment coordinator and one of the career coaches being made redundant, so there were only two career coaches and the lead career coach available to deliver the ICM intervention.

Similar to TAU, the duration of ICM differed between participants. There was no waiting list for ICM so all participants were offered a session with a career coach immediately after entry to the study, however the length of ICM was dependent on how many sessions the participant needed and whether or not they engaged with the intervention. Likewise, at the 6-month follow-up, some participants had completed the ICM intervention whereas others were still having sessions with their career coach.

5.5.3. Treatment Fidelity

The Southwark IAPT service was subject to regular external commissioner-led reviews and audits to ensure that the service was compliant with the principles of the NICE stepped care approach, which were not part of this study (NCCMH, 2011). Adherence to the ICM model was ensured through monthly individual and group supervision sessions with the career coaches.

5.6. Study Procedures

5.6.1. Promotion of the Study

The study was initially promoted to SPTS team leaders a few months before commencement, through individual and group meetings to explain the study and answer any questions they might have. The team leaders then informed their staff (therapists) about the study.

A few weeks before the study commenced, a training session was delivered by the principal investigator to all SPTS staff, which included background information about the study, details of how to refer participants to the study, and an opportunity for therapists to ask questions.

Throughout the study, the principal investigator attended regular team meetings for each of the locality teams to continue to promote the study, to update the staff about any changes, and answer any questions they might have. Some therapists were initially reluctant to refer their patients to the study because they were concerned that they would be disappointed if they were allocated to the TAU group and this might deter them from engaging with their IAPT therapy, so the principal investigator addressed their concerns at team meetings and through one-to-one communication with therapists.

The study was launched during a time of NHS funding cuts. Although funding was not cut directly from SPTS, changes in the organisation appeared to have an impact on the morale of therapists. Several therapists left SPTS, and the strain of understaffing and high targets meant that some therapists were unable to

prioritise the study. This impacted on referral rates, so extra promotional activities were introduced:

Firstly, a monthly newsletter was developed and sent out to all IAPT therapists. Each edition of the newsletter contained quotes from participants and therapists that were supportive of the study, to encourage other therapists to become involved. Charts showing the referral rates from each team were also included in the newsletter, and this appeared to create some 'healthy competition' between the therapists, encouraging them to refer more participants to the study.

Secondly, rewards (e.g. chocolates / biscuits) were given for the highest referring teams each month.

Regular updates were also sent out in the SPTS staff email bulletin (written by the SPTS director), and career coaches promoted the study on an ongoing basis at one-to-one or group meetings with therapists.

5.6.2. Recruitment of Potential Participants

All participants were recruited via SPTS. Three different recruitment mechanisms were used:

1. Leaflets advertising the study were sent out to patients in IAPT screening packs. Patients that were interested in taking part in the study were able to tick a box on their IAPT self-referral form to say they would like to be contacted by the Research Team.
2. Posters advertising the study were displayed in waiting rooms where patients were accessing IAPT treatment. Patients that were interested in taking part in the study were able to contact the research team directly by using the phone number or email address on the poster.
3. IAPT therapists informed patients about the study during routine appointments (e.g. initial assessments, treatment sessions, workshops, etc.). Patients that were interested in taking part in the study gave permission for the therapist to pass their name and contact details directly to the research team or were given an expression of interest form which they could complete and return to the research team themselves.

5.6.3. Screening of Potential Participants

All patients referred to the study were screened for eligibility against criteria 1 and 2 (see 5.4.2) by the research data manager. Eligible patients were contacted immediately and invited to attend an information session with a research assistant. Non-eligible patients were also contacted so their details could be checked (i.e. they could be eligible but completed the expression of interest form incorrectly), and if they were not eligible they were informed and reminded of the other employment services that were available in the local area. Patients that were not yet eligible (due to awaiting their IAPT assessment) were tracked and contacted again when they became eligible.

5.6.4. Information Sessions

Research assistants used a checklist to ensure that information sessions were carried out in accordance with an agreed protocol. The information session included an explanation of the following: introduction to the study, what ICM involves, how random allocation works, how many meetings they would be required to attend if they participate, how information would be kept confidential, risks and benefits of participating in the study, how to claim travel expenses, and how to withdraw from the study.

If the participant asked any questions, the research assistant answered them immediately or explained that someone would get back to them with the answer, if unknown.

The Research Assistant checked understanding at the end of the information session by asking two questions:

1. 'Do you understand what you need to do if you participate in the study?'
2. 'Do you understand the difference between the intervention group and control group, and how you will be allocated?'

Participants were also asked if they would like to participate in the study. If the participant had understood the information and said they would like to participate in the study, the research assistant booked them in for a baseline interview appointment within the next week. If the participant had not understood the

information or said they were unsure about participating in the study, they were not booked in for a baseline interview appointment.

All participants were given a copy of the Participant Information Sheet (see Appendix 5) and Individual Career Management leaflet (see Appendix 6) to take away with them. They were told that if they had any further questions about the study they could contact the principal investigator.

The research data manager then contacted each patient within 2-3 days (allowing at least 24 hours after the information session). If the patient had been booked in for a baseline interview, the research data manager checked they were still able to attend and gave them the opportunity to cancel (e.g. opt out) if they wished. If the patient had not been booked in for a baseline interview, the research data manager asked them if they would like to take part, and if they said yes, booked them in for a baseline interview appointment.

5.6.5. Baseline Interviews

At the baseline interview, participants were asked to give written informed consent. The research assistant assessed mental capacity by checking the patient's ability to read and understand the information sheets given before signing the consent form.

When consent forms had been completed, participants were asked to answer a series of questionnaires in a one-to-one interview with the research assistant.

The research assistant used a participant data pack for each data collection interview. The participant data pack consisted of the following sections:

1. Participant Characteristics (baseline only).
2. Occupational Status
3. Measures of Wellbeing
4. Use of Services
5. Use of IAPT
6. Use of ICM (follow-up only)

Sections 1, 2, and 4 were read out loud to the participant and the research assistant recorded the participant's answers on the form.

Section 3 was given to the participant to complete themselves as it contained several questionnaires. The research assistant sat quietly while the participant was given time to complete Section 3.

Section 5 was completed by the principal investigator after the interview. Data for Section 5 was obtained from the IAPTUS database.

At the end of the baseline interview the participants were thanked for their time and were informed that they would hear from the research data manager within the next week about the group that they had been randomly allocated to.

5.6.6. Randomisation

After the baseline interview, the participant's details (initials, ID number, age, team, gender, and length of unemployment) were entered onto the Clinical Trials Online Randomisation Website by the research data manager, who then received an automated email reply stating the allocation of the participant.

The research data manager contacted participants by phone to inform them of their allocation. The date the participant was first informed of their allocation (e.g. date of phone call) was the date of entry into the study.

Participants assigned to the ICM group were offered an appointment with an ICM career coach immediately (within 7 days). Participants assigned to the TAU group were informed that they had not been selected for the ICM intervention. They were reminded that their psychological therapist could give them information about other employment services in the local area if they wished to access them.

During the phone call, all participants were given a date for their follow-up interview. The follow-up interview was six months from the date of entry to the study. It was also explained to them that they would be contacted in approximately three months' time to check their details were still the same (address, phone number, etc.) and they would receive a reminder phone call a few weeks before their 6 month interview to confirm the date and time.

To help recall of service use, all participants were asked to keep a log during the six month period of any appointments they attended with clinical services,

including their GP, mental health services, psychological therapy, or hospital admissions; and bring the completed log to their follow-up appointment.

After the phone call, participants were sent an appointment letter confirming the date and time of their follow-up appointment. If the participant was in the TAU group, a copy of the Employment & Training Services list was included with the letter.

A letter was sent to the GP of every participant, informing the GP that the patient had entered the study and providing the contact details of the principal investigator in case any GPs had questions or concerns about the study (no GPs actually contacted the principal investigator during the study).

5.6.7. Contact with Participants

5.6.7.1. Participant Newsletter

A newsletter was sent to participants every two months throughout the follow-up period. The newsletter contained the following information: message from the principal investigator thanking them for participating; positive quotes from participant feedback questionnaires; a Q&A section with common questions asked; a list of employment support organisations that they could access; and most recent recruitment and completion figures for the study (against the targets).

Printed copies of the newsletter were sent in the post to all participants, except those who had requested not to be contacted by post, in which case a PDF copy was sent by email. Printing and postage costs were covered by the ICM Service.

5.6.7.2. Greeting Cards

Birthday cards (from the research team) were sent to all participants who had a birthday during the follow-up period. All participants were sent a non-religious 'seasons greetings' card at Christmas.

5.6.7.3. Participant Payments

Although some previous studies of supported employment have paid participants for attending research interviews (Bond et al., 2007; Gold et al., 2006; Howard et al., 2010; Lehman et al., 2002), this was an unfunded study and it was therefore not possible for participants to be paid. Travel expenses for research interviews were refunded however, and this cost was covered by the ICM Service budget.

5.6.7.4. Three Month Contact

At the half way point of the follow-up period (e.g. 3 months after entry to study), participants were contacted by the research data manager. Contact was made by phone, email or letter, depending on the participant's preferred method of contact. The research data manager thanked them for continuing to participate in the study, and reminded them of their follow-up interview (in 3 months time).

5.6.7.5. Final Month Contact

Participants were contacted again by the research data manager with a reminder approximately 2-4 weeks before the follow-up interview. The research data manager checked that the participant was still able to attend the appointment (and if not, a different appointment date/time was arranged) and reminded the participant of what the appointment would involve (e.g. follow-up questionnaires lasting no longer than 1 hour in total). The research data manager also reminded the participant that they must not reveal to the research assistant during the follow-up interview which group (ICM/TAU) they were in, as this was an important condition of the study.

A letter confirming the date, time and location of the follow-up appointment was sent to the participant after the contact. The research data manager also contacted the participant's therapist or career coach to inform them of the date of the follow-up appointment. Therapists and career coaches were asked to assist with follow-up by reminding participants of their upcoming appointment if they were still in touch with the participant.

5.6.7.6. Final Day Contact

One day before the follow-up appointment, the research data manager sent the participant a text reminding them of their appointment. A landline phone call was made or an email was sent if the participant did not have a phone number.

5.6.8. Follow-Up Interviews

At the follow-up interview, participants met with a research assistant who had not previously been linked to the study. The research assistant asked the participant not to reveal which group they were in until after the interview. The research assistant used the follow-up data pack to administer all questions and questionnaires and checked they were completed fully during the interview. A verbal and written debrief from the study was given to the participant at the end of the follow up interview explaining that they had completed the study and they were thanked for their time. If the participant still required assistance in looking for work, they were given information about any employment services that they could access, including ICM support if the intervention was available at that time (dependent on funding).

5.6.9. Losses to Follow-Up

Follow-up interviews took place no more than 28 days after the follow-up period end date (i.e. 7 months after entry to the study). A protocol was put in place for dealing with participants that did not turn up for their follow-up interview, as follows:

1. If the participant did not turn up for the appointment, the research assistant would firstly check their 28-day cut-off date and call the participant by phone. If possible, another appointment would be made before the 28-day cut-off date. Participants were offered the opportunity for follow-up appointments to be made at their home, their workplace, or out of hours (e.g. evening) if they were working full time.

2. If it was not possible to schedule another appointment, the research assistant would ask the participant to complete a short phone interview. The short phone interview included the primary outcome questions, occupational outcomes and service use details, but none of the wellbeing outcomes (questionnaires).
3. If the participant was unable to complete the phone interview or was uncontactable, the research data manager would make further attempts to contact them and re-book the appointment until the 28 day cut-off date, at which point they were considered 'lost to follow-up'.
4. The research administrator contacted the key worker (e.g. therapist or career coach) for all participants that were lost to follow up, and asked them to complete a key worker questionnaire. The questionnaire asked them to fill out details of the participant's occupational status to the best of their knowledge.

5.6.10. End of Study

At the end of the study each participant received a letter confirming that they had completed their follow-up and were now discharged from the study. All TAU group participants were offered a free 1-hour session with a career coach. After the 1 hour session, if they were eligible (i.e. still receiving IAPT treatment), they were offered up to six further sessions. If not, the career coach signposted them to other organisations. ICM group participants were not offered a free 1-hour session with a career coach; depending on their IAPT eligibility they were either offered further sessions with their existing career coach or signposted to other organisations.

All participants were asked to complete an anonymous evaluation form at the end of the study which was voluntary. The form provided the opportunity to give positive or negative feedback about the study, which was then used by the research team to make improvements or as publicity to encourage other patients to participate.

5.7. Data Collection

All primary and secondary outcomes were measured at baseline and follow-up, six months after entry to study. Data was collected by a research assistant during baseline and follow-up interviews. All interviews were held at a private office at the Maudsley Hospital and lasted approximately one hour each.

5.7.1. Participant Characteristics

At baseline, a range of information was collected about the characteristics of each participant, including the following:

- Date of birth
- Gender (male/female)
- Ethnicity (e.g. White British, Black or Black British, etc.)
- Last date they attended work (or if they have never worked, the last date they attended full-time education)
- Highest level of educational qualification (e.g. Level 1 GCSE Grades D-G, Level 2 GCSE Grades A*-C, etc.)
- Main unemployment benefit (e.g. Jobseeker's Allowance, Employment & Support Allowance, etc.)
- Motivation to work (how important it is for them to return to paid employment on a scale of 1 to 10).
- Locality team (e.g. North West Southwark, North East Southwark, etc.)
- Current diagnosis (ICD-10 codes).

5.8. Outcomes

5.8.1. Primary Outcome

The primary outcome of attending competitive employment was measured by the participant's answer to the following three questions:

- *Have you attended work for one day or more during the follow-up period? (Yes)*
- *Does your main or most recent organisation only employ people specifically with disabilities or health problems? (No)*
- *Were / are you paid at least the national hourly minimum wage for the work you do? (Yes)*

5.8.2. Secondary Outcomes

- **Current occupational activity:** Percentage of participants currently in employment, training or voluntary work.
- **Occupational Activity during follow-up:** Percentage of participants undertaking any occupational activity during the follow-up period, defined as employment, training, or voluntary work.
- **Time to Employment:** Mean number of days between date of entry to study and first date employment attended.
- **Length of Employment:** Mean number of weeks employed during the follow-up period.
- **Number of Jobs:** Mean number of different jobs held during the follow-up period.
- **Job Terminations:** Mean number of job terminations during the follow-up period and the reasons for termination.
- **Job Type:** Mean skill level of job held, categorised according to four levels of the HESA Standard Occupational Classification Groups (SOC2000)¹.
- **Salary:** Mean gross salary over the follow-up period.
- **Working Hours:** Mean number of hours worked per week.
- **Absenteeism:** Mean absenteeism score on the World Health Organization's Health and Work Performance Questionnaire scale (HPQ)*.
- **Presenteeism:** Mean presenteeism score on the World Health Organization's Health and Work Performance Questionnaire scale (HPQ)*.

¹ Level 1 = Elementary occupations; Level 2 = Administrative and secretarial occupations, caring, leisure and other service occupations, sales and customer service occupations, and process, plan and machine operatives; Level 3 = Associate professional and technical occupations, and skilled trades occupations; Level 4 = Managers, directors and senior officials, and professional occupations.

- **Job Satisfaction:** Mean score on Work-Related Quality of Life scale (WRQoL)*.
- **Return to Work Self Efficacy:** Mean score on Return to Work Self Efficacy scale (RTW-SE)*.
- **Career Search Efficacy:** Mean score on Career Search Efficacy scale (CSES)*.
- **Anxiety:** Mean score on Generalised Anxiety Disorder scale (GAD-7)*.
- **Depression:** Mean score on Patient Health Questionnaire scale (PHQ-9)*.
- **Social Functioning:** Mean score on Work and Social Adjustment scale (WSAS)*.
- **Self Esteem:** Mean score on Rosenberg Self Esteem scale (SES)*.
- **Quality of Life:** Mean score on EuroQol 5 Dimensions EQ-5D-3L scale (EQ5D)*.

*Outcome measurement scales are described in more detail in section 5.9.4.

5.9. Measurement Scales

Standardised measurement scales were required for several of the secondary outcomes listed above, however as this study was the first RCT of ICM with people with common mental illness, there were no equivalent studies to refer to for guidance on the most appropriate measures to use. A review of potential measures was therefore conducted.

5.9.1. Identification of potential measurement scales

The measurement scales most commonly used in studies of IPS were identified in the systematic review (see Chapter 4). In addition, a professor of primary care was consulted for advice on additional measures that are commonly used in studies of cognitive behavioural interventions for people with anxiety or depression. The following scales were shortlisted for review:

Absenteeism and presenteeism

- Health and Work Performance Questionnaire – HPQ (Kessler et al., 2003)
This scale is recommended by the World Health Organisation for measuring absenteeism and presenteeism. No other measurement scales were identified.

Job satisfaction

- Indiana Job Satisfaction Scale (IJSS) (Resnick & Bond, 2001)
- Job Satisfaction Survey (JSS) (Spector, 1985)
- Index of Job Satisfaction (IJS) (Brayfield & Rothe, 1951)
- Work and Wellbeing Outcome Scale (WWO) (QOWL, 2010)
- Work Related Quality of Life scale (WRQoL) (Easton & Laar, 2012)
- Career Satisfaction Scale (CSS) (Greenhaus et al, 1990)

Return to work self-efficacy

- Return to Work Self Efficacy Scale (RTW-SE) (Lagerveld et al 2010)
- Barriers to Employment and Coping Efficacy Scale (BECES) (Corbière et al, 2004)

Career search efficacy

- Career Search Efficacy Scale (CSES) (Solberg et al., 1994)
- Career Decision Making Self Efficacy Scale (CDMSES) (Taylor & Betz, 1983)

Anxiety

- Generalised Anxiety Disorder scale (GAD-7) (Spitzer et al., 2006)
- Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983)

The HADS is also used as a measure for depression.

Depression

- Patient Health Questionnaire scale (PHQ-9) (Kroenke et al., 2001)
- Beck Depression Inventory (BDI) (Beck et al., 1988)

Social functioning

- Work and Social Adjustment Scale (WSAS) (Mundt et al., 2002)

The Global Assessment of Functioning (GAF) (Hall, 1995), Global Assessment Scale (GAS) (Endicott et al., 1976), and Social Functioning Assessment Scale (SOFAS) (Rybarczyk, 2011) were also obtained but were not shortlisted because they are designed for people with severe mental illness and not suitable for the client group in this study.

Self esteem

- Rosenberg Self Esteem Scale (SES) (Rosenberg, 1965)

This scale has been commonly used in RCT's of IPS (see chapter 4). No other measurement scales were identified.

Health related quality of life

- Quality of Life Index (QLI) (Ferrans & Powers, 1985)
- Quality of Life Scale (QOLS) (Burckhardt & Anderson, 2003)
- Manchester Short Assessment of Needs (MANSA) (Priebe et al., 1999)
- 36 Item Short Form Health Survey (SF-36v2) (Ware & Sherbourne, 1992)
- EuroQol 5 Dimensions EQ-5D-3L scale (EQ-5D) (EuroQol Group, 1990)

The Quality of Life Interview (QOLI) (Lehman, 1988) and Camberwell Assessment of Need (CAN) (Phelan et al., 1995) were obtained but not shortlisted because, as for the social functioning scales above, they are designed for people with severe mental illness and not suitable for the client group in this study.

5.9.2. Service user feedback

The aim of the first stage of the review of measurement scales was to obtain service user feedback on the usability of each measure. ICM service users were asked by their career coaches if they would be willing to help test the measurement scales as a pilot for the forthcoming trial, and eight service users responded. It was considered unnecessary and unrealistic to ask all service users to test all of the measurement scales due to the large number involved, so they were asked to state their preferences for which measurement scales they would like to review, and a minimum of two service users were then allocated to each measurement scale.

A questionnaire was designed to assess difficulty, relevance, and bias (reproduced in Appendix 4), and each service user completed the questionnaire for the measurement scales they reviewed. The questionnaire covered the following categories: ambiguity, language, structure, relevance of questions, ethnic bias, age and gender bias and completion time. Completed questionnaires were returned to the principal investigator and responses were entered onto a spreadsheet. No service user names or personal details were recorded. The results of the service user feedback can be found in Table 5.1.

Table 5.1 Service user feedback review of potential measurement scales

Name of scale	No of service users	Ambiguity?	Difficult language?	Difficult structure?	Irrelevant language?	Irrelevant questions?	Ethnic bias?	Age/ gender bias?	Average time to complete (in mins)
HPQ	4	Participant 2: unsure how to answer q4-6	No	Participant 2: q3 too difficult to work out	No	No	No	No	6
IJSS	3	Participant 1 and 2: some questions ambiguous.	No	No	No	Participant 2: some only apply to large organisations	No	No	8
JSS	3	Participant 1: q1 and q21 ambiguous.	No	Participant 2: scale was hard to follow.	No	Participant 2: some questions not relevant.	No	No	12
IJS	3	No	No	Participant 1: capital letters hard to read.	No	No	No	No	10
WWO	3	No	No	No	No	No	No	No	5
WRQoL	3	Participant 1: some questions ambiguous.	No	No	Participant 2: some language not relevant.	No	No	No	6

Name of scale	No of service users	Ambiguity?	Difficult language?	Difficult structure?	Irrelevant language?	Irrelevant questions?	Ethnic bias?	Age/ gender bias?	Average time to complete (in mins)
CSS	4	Participant 1: some questions ambiguous	No	No	No	Participant 1: not relevant to people who do not have career goals	No	No	4
RTW-SE	3	All participants thought q1 was too vague.	No	Participant 1 and 2 misunderstood q9 due to negative wording.	No	No	No	No	4
BECES	2	No	No	Participant 1 found structure too difficult and gave up.	No	No	No	No	5
CSES	2	No	Participant 1: q14 and q34 difficult.	No	No	No	No	No	10
CDMES	2	Participant 1: q19 ambiguous	No	No	No	Participant 1: q21 not relevant for people with a degree.	No	No	6
PHQ-9	3	No	No	No	No	No	No	No	6

Name of scale	No of service users	Ambiguity?	Difficult language?	Difficult structure?	Irrelevant language?	Irrelevant questions?	Ethnic bias?	Age/ gender bias?	Average time to complete (in mins)
BDI	3	Participant 1: q16-18 ambiguous	No	No	No	Participant 3: p21 not relevant	No	No	12
HADS	3	Participant 1: One question ambiguous(not specified)	No	No	No	No	No	No	13
GAD7	3	No	No	No	No	No	No	No	7
WSAS	3	No	No	No	No	No	No	No	4
SES	3	No	No	No	No	No	No	No	10
QLI	4	Participant 1 and 3: some questions ambiguous.	Participant 3: q33.	No	Participant 3: q28.	Participant 2 and 4: question about family.	No	No	13
QOLS	4	Participant 2: q10 ambiguous.	Participant 2: q15.	No	No	Participant 3: question about children.	No	No	5
MANSA	4	No	No	No	No	No	No	No	5
SF-36v2	4	No	Participant 2: q3.	No	No	No	No	No	8
EQ-5D	4	No	No	No	No	No	No	No	5

The results were reviewed by the principal investigator and study supervisors, and the following conclusions were made about the suitability of measures for the study:

Absenteeism and presenteeism: One of the service users had difficulty completing the HPQ measure however the other three did not, and there were no other measures available. It was decided that this measure could be used in the study but assistance may be required from the interviewer if necessary.

Job satisfaction: The WWO could be used as it had the best service user feedback and took the second shortest time to complete.

Return-to-work self-efficacy: Both the RTW-SE and BECES had mixed feedback from service users, however as one of the service users failed to complete the BECES due to the difficulty they had, this measure was considered unsuitable for use in the study. As no other measures were available, the RTW-SE was used.

Career search efficacy: The CSES and CDMES both had mixed feedback from service users, however the service users commented that they found the CSES more enjoyable to complete, so this measure was selected for inclusion in the study.

Self-esteem: Service user feedback indicated that the SES was appropriate for use in this study. No other measures were available.

Depression and anxiety: The GAD7 and PHQ9 had the best service user feedback and took the shortest time to complete, so were considered appropriate for inclusion.

Social functioning: Service user feedback indicated that the WSAS was appropriate for use in this study. No other measures were available.

Health related quality of life: The MANSA and EQ-5D both had equally good service user feedback and took the same time to complete. However, as the EQ-5D can be used to calculate QALYs for the purpose of economic evaluation (see section 5.11.7), this scale was selected.

5.9.3. Reliability and validity

Information regarding the reliability and validity of each measure was obtained, to ensure that those deemed suitable for use in the CAREER study were scientifically sound. All measures were found to have been tested with large sample sizes and standardised for use in research, apart from the WWO, which had not yet been validated. It was therefore decided that the next best job satisfaction measure, the WRQoL, would be used instead, as reliability had been established with some groups of employees and students, and it was currently being used by a range of researchers in the UK so there could potentially be comparable data in the future.

5.9.4. Measurement scales selected for study

The following measurement scales were selected for the study based on the results of service user feedback and review of reliability and validity data. A brief description of each measure and scoring procedure is included:

5.9.4.1. Health and Work Performance Questionnaire – HPQ (Kessler et al., 2003)

Absenteeism and presenteeism were recorded using the World Health Organization's Health and Work Performance Questionnaire (HPQ). The HPQ is a validated measure (Kessler et al., 2003) and has been used in several economic evaluation studies (Kuyken et al., 2008; Richards et al., 2016).

The HPQ gives the option of scoring 'absolute absenteeism' or 'relative absenteeism'. It was decided that 'relative absenteeism' would be used in order for each participant to have a proportional score that could be compared with other participants. The absenteeism questions ask the participant how many hours they are expected to work and then to estimate how many hours they have worked in a four-week period. If the participant works all of their expected hours, their relative absenteeism score is zero (never absent), and if they work none of their expected hours, their relative absenteeism score is 1 (always absent). The

score is calculated by subtracting the actual hours from the expected hours, then dividing by the expected hours. A negative score therefore indicates that the participant has worked more than their expected hours.

Similarly, a score of 'relative presenteeism' was chosen in preference to a score of 'absolute presenteeism'. The presenteeism questions ask the participant to subjectively rate their own work performance and the usual performance of most workers in a job similar to theirs. A relative presenteeism score is then calculated as a ratio of own performance to possible performance. The range is restricted to 0.25 for worst relative performance (a quarter or less of other workers' performance) and 2.0 for best performance (twice the performance of other workers' performance).

A combined score of relative absenteeism and relative presenteeism can also be calculated to measure productivity i.e. how productive the participant was in terms of the hours they worked and their performance during those hours. To calculate this combined score, the relative absenteeism score is subtracted from 1, then multiplied by the relative presenteeism score.

5.9.4.2. Work-Related Quality of Life Scale - WRQoL (Easton & Laar, 2012)

The WRQoL is a 23-item five point Likert scale used to measure perceived quality of working life of employees across six psychosocial sub factors: job and career satisfaction, general well-being, stress at work, control at work, home-work interface and working conditions. Answers are coded from strongly disagree = 1 to strongly agree = 5. The scale includes three negative items (scores reversed) and a 24th question to measure social desirability. Higher scores indicate greater perceived quality of working life. Scores for each sub factor are calculated and an overall WRQoL score is calculated by taking the average of all 23 items. The scale was first developed through a survey of NHS staff in the UK (Van Laar et al., 2007) and later validated with university staff (Edwards et al., 2009). Permission to use the WRQoL for the CAREER Study was granted by the authors at QOWL.

5.9.4.3. Return to Work Self Efficacy Scale - RTW-SE (Lagerveld et al., 2010)

The RTW-SE is an 11-item six point scale ranging from 1 = totally disagree to 6 = totally agree. The scale consists of three negative (reverse scored) items. A mean score of all scale items is used to calculate the RTW-SE score. Higher scores indicate higher return to work self-efficacy.

The RTW-SE was validated in 2010 through testing with 2214 participants (Lagerveld et al., 2010) and was found to be a robust predictor of return to work for employees who were off sick from work. The 11 RTW-SE questions were taken directly from the original paper and added to the CAREER study participant data pack. Author's permission was not required.

5.9.4.4. Career Search Efficacy Scale – CSES (Solberg et al., 1994)

The CSES is a 35-item ten point Likert scale used to measure participants' confidence in successfully looking for work across four factors: job search; interviewing; networking; and personal exploration. Answers are coded from 0 = very little to 9 = very much. The scale does not contain any negative items and the overall CSES score is calculated as the mean of all item scores. Higher scores indicate higher confidence in being able to successfully look for work.

The CSES was designed in 1991 and originally consisted of 72 items. It was later validated and reduced to 35 items by Solberg et al in 1994. The 35 questions were taken directly from the 1994 paper and adapted for use in the CAREER study participant data pack. Author's permission was not required.

5.9.4.5. Rosenberg Self Esteem scale – SES (Rosenberg, 1965)

The SES is a 10-item four point Likert scale ranging from strongly disagree = 1 to strongly agree = 4. The scale contains five negative (reverse scored) items. An SES score is calculated by the sum of scores for all ten items. Higher scores indicate higher self-esteem.

The SES was originally developed with a sample of 5,024 students (Rosenberg, 1965) and is currently widely used in research across the world. It was not necessary to request permission to use the scale in the CAREER Study however the Morris Rosenberg Foundation at the University of Maryland were informed, as per the user instructions.

5.9.4.6. PHQ-9 (Kroenke et al., 2001)

The PHQ-9 is the depression module of the Patient Health Questionnaire (PHQ) which scores the nine DSM-IV (American Psychiatric Association, 2000) criteria for depression. It is a nine item four point Likert scale ranging from 'not at all' = 0 to 'nearly every day' = 3. A depression severity index score is calculated by taking the sum of scores for all nine items, and severity is categorised as: none (0-4); mild (5-9); moderate (10-14); moderately severe (15-19); and severe (20-27). A score of 10 or above indicates that the participant meets the condition for 'caseness', which means that they are considered to be suffering from clinically significant symptoms of depression. When comparing pre and post measures, a change of 'caseness' (≥ 10) to 'no caseness' (< 10) is considered to show recovery, and a change in score of six or more is considered to be a statistically reliable change (Gyani et al., 2013).

The PHQ-9 was validated with a sample of 6,000 patients (Kroenke et al., 2001). It is one of the mandatory outcome measures used in the IAPT minimum data standard (NHS, 2011). No permission was required to use the PHQ-9 in the CAREER Study.

5.9.4.7. GAD-7 (Spitzer et al., 2006)

The GAD-7 is a seven item four point Likert scale ranging from 'not at all' = 0 to 'nearly every day' = 3. An anxiety severity index score is calculated by taking the sum of scores for all seven items, and severity is categorised as: none (0-4); mild (5-10); moderate (11-15); and severe (16-21). A score of eight or above indicates that the participant meets the condition for 'caseness', which means that they are considered to be suffering from clinically significant symptoms of anxiety. When comparing pre and post measures, a change of 'caseness' (≥ 8)

to 'no caseness' (< 8) is considered to show recovery, and a change in score of four or more is considered to be a statistically reliable change (Gyani et al., 2013).

The GAD-7 was validated with a sample of 2,740 patients (Spitzer et al., 2006). It is one of the mandatory outcome measures used in the IAPT minimum data standard (NHS, 2011). No permission was required to use the GAD-7 in the CAREER Study.

5.9.4.8. Work and Social Adjustment Scale – WSAS (Mundt et al., 2002)

The WSAS is a five item nine point Likert scale ranging from 'no impairment' = 0 to 'severe impairment' = 8. A total WSAS score is calculated by the sum of scores for all five items. Higher scores mean higher impairment to social functioning.

The WSAS was validated with a sample of over 500 patients (Mundt et al., 2002). It is one of the mandatory outcome measures used in the IAPT minimum data standard (NHS, 2011). No permission was required to use the WSAS in the CAREER Study.

5.9.4.9. EuroQol 5 Dimensions EQ-5D-3L (EuroQol, 1990)

The EQ-5D-3L (5 dimensions, 3 levels) consists of two parts: the EQ-5D descriptive system and the EQ visual analogue scale (EQ-VAS). The descriptive system asks participants to indicate their health state (no problems, some problems, or extreme problems) across five dimensions: mobility; self-care; usual activities; pain/discomfort; and anxiety/depression. The visual analogue scale asks participants to rate their current state of health on a vertical scale of 0 = 'worst imaginable health state' to 100 = 'best imaginable health state'.

The descriptive system is scored by assigning a five digit code to represent the three levels (e.g. 1, 2 or 3) in each of the five dimensions. For instance, a code of 11111 represents no problems in any of the five dimensions, and a code of 22333 represents some problems in mobility and self-care, and extreme

problems in usual activities pain/discomfort, and anxiety/depression. A total of 243 different health states (5 digit codes) are possible.

The visual analogue scale score is taken directly from the line drawn by the participant on the scale. For example, if the line was drawn at '64' on the scale, their score is 64.

The EQ-5D was validated by the EuroQol Group (EuroQol, 1990) and is recommended by NICE for clinical and economic evaluations of healthcare (Wailoo et al., 2010). Use of the instrument in the CAREER Study was not registered with the author.

5.10. Economic Data

5.10.1. Perspective

The study took a broad societal perspective that included the costs of all relevant health, social, and employment services, and reductions in productivity through paid employment losses.

Although NICE recommends the NHS and personal social services (PSS) perspective for interventions with health outcomes in NHS settings (NICE, 2013), a broader societal perspective was chosen for this study due to the focus on paid employment as the primary outcome. Whilst the intervention is currently commissioned by the NHS, increased productivity through paid employment has wider benefits to society, such as increased consumption for the individual and their family as an impact of their financial earnings, and increased benefits to other individuals through taxation. Commissioners of the intervention in future may not be limited to the NHS and could potentially include other government bodies such as the Department for Work and Pensions, or even private employers.

However the inclusion of productivity effects in economic evaluation is controversial (Drummond et al., 2015) as there are various different methods of measuring productivity, and there is a risk of double-counting the benefits of productivity if the benefits of paid employment are also taken into account when

measuring individual's perceived health state. Productivity losses were therefore removed in a sensitivity analysis that took the NICE-recommended NHS and personal social services (PSS) perspective only, to provide decision-makers with the option of choosing whether or not to include them. This approach follows the recommendations made by Drummond et al (2015).

5.10.2. Measurement of resource use

Study participants' resource use for the previous six months was collected at baseline and follow-up. As the economic evaluation was conducted as part of the RCT, it was possible to measure individual level resource use data. Individual data is a more accurate measurement of resource use than summary data from literature reviews which is often used in economic evaluations that occur after a clinical trial has been completed (Drummond et al., 2015). Two methods were used to measure individual resource use in this study: electronic database records and service use questionnaires.

5.10.2.1. IAPT and ICM use

IAPT therapy and ICM intervention use data were collected from the IAPTUS electronic clinical database using a proforma in the participant data pack. The clinical record for each participant was located, and details of all attended appointments were added to the data pack. This included the type of appointment (face-to-face, group, telephone, text, email or other), salary band of the therapist / career coach, number of contacts, and total clinical time in minutes. Administrative time relating to appointments (e.g. time spent writing notes after the appointment) was available on the electronic database record but not included in the study for two reasons: firstly there were inconsistencies in this data between individual therapists, and secondly, administrative time is already included in the unit cost for a psychological therapist (see section 5.10.3.3) so this avoided overestimating the cost of IAPT or ICM service use.

No other forms of measurement were considered for IAPT or ICM service use data, as the electronic database record was the most accurate source of data

available, and the principal investigator already had access to the database as a manager in the service so no additional technical permission was required.

5.10.2.2. Health and social care resource use

A variety of different methods can be used for capturing patient-level data in economic evaluations of healthcare interventions, including medical records (e.g. patient notes and electronic databases), prospective forms completed by trial researchers or healthcare professionals (based on patient recall or taken from routine sources), patient/carer completed diaries, and patient/carer completed forms (Ridyard & Hughes, 2010).

Electronic clinical databases were considered as a potential method of data collection for health and social care resource use in this study, however it was decided that this would be too complex due to the range of possible services used and the fact that permission would be required to access the several different organisational databases on which the data is held (e.g. GP's, hospitals, local authority departments, charity organisations etc.). The use of service use diaries was also considered, however this would only be possible for the follow-up data and not at baseline, so was deemed an inconsistent method of data collection thus not suitable for the study.

Service use questionnaires were judged to be the most appropriate method of data collection for the study due to their simplicity and the minimal burden on the participant. Although the accuracy of data in a service user questionnaire is dependent on the recall memory of interviewees (Drummond et al., 2015; Ramsey et al., 2015), it was felt that this would be more accurate than a service use diary which some participants may forget to complete. In addition, service use questionnaires can cover all relevant services, as opposed to electronic databases which may only provide data about some of the services accessed by the participant. However, to maximise the accuracy of the data collected during the follow-up period, participants were given a 'service use log' sheet at the baseline interview, to complete over the six months and bring to their follow-up interview. This was not a diary, and was only used to prompt recall for completing the service use questionnaire.

The service use questionnaire was a modified version of the Adult Service Use Schedule (AD-SUS), adapted for the purpose of the CAREER Study. The AD-SUS has been developed for use in studies with other mental health populations, including patients with common mental disorders (Kuyken et al., 2008). It was adapted for the CAREER Study by excluding any health and social care resources unlikely to be used by people with common mental illness, and including employment and vocational services. The questionnaire was split into three sections: hospital services; community-based health, social and vocational services; and medication.

The hospital services section asked participants if they had had any hospital admissions, outpatient/day patient appointments or accident and emergency attendances over the last six months. If so, the name of the hospital was recorded from a list of local hospitals (e.g. King's College Hospital), and the speciality (e.g. Cardiology) was also recorded from a list; both lists had the option of 'other' where details could be recorded if they did not appear on the list. The number of nights were recorded for inpatient admissions, and the number of attendances were recorded for all other hospital contacts.

The community-based health, social and vocational services section asked participants if they had any contacts with a range of community based professionals or services over the last six months. The list included: GP; nurse; therapist/counsellor; occupational therapist; social worker; advice service; day centre; and employment services. The number of contacts and average duration in minutes per contact were recorded.

The medication section asked participants if they had been prescribed any medication for mental health issues such as anxiety or depression. If so, the name of the medication, date started, dose, units (e.g. milligrams), frequency taken (e.g. once daily), and date stopped (if applicable) were recorded. A list of common medication names was provided to assist participants recall the name of their medication if necessary.

5.10.3. Valuation of unit costs

Data collection for the CAREER Study was completed in March 2014, so all unit costs were estimated for the financial year 2013/14, the final year of the study. A

stochastic costing approach was used where a unit cost was derived for each type of resource used and applied to each piece of service use data (Gray et al., 2011). Unit cost values were obtained from a variety of different sources, including published unit cost schedules, academic literature, and discussion with experts in the field.

5.10.3.1. IAPT and ICM

For the IAPT and ICM interventions, a micro-costing (bottom-up) approach was used (Drummond et al., 2015; Gray et al., 2011). Data for wages and overheads for all NHS Pay Bands (for IAPT and ICM staff) was obtained from the Finance Business Partner at South London and Maudsley NHS Foundation Trust for the financial year 2013/14. A unit cost per minute of individual client contact time was calculated using the following assumptions:

1. Wages were based on actual NHS pay data for the mid spine point of each band on the Agenda for Change (AfC) payscale and included inner London weighting as all staff were employed in the London Borough of Southwark.
2. Salary on-costs (including pension and national insurance costs) and overheads (including management support, accommodation, administrative support and non-pay costs) were calculated by the Finance Business Partner by applying the formula that is used across the organisation.
3. Travel and training costs were covered in the cost of overheads.
4. Annual capital overheads were set at a level of £2,000 per individual, regardless of their pay band, on the advice of the Finance Business Partner.
5. All full-time staff were assumed to work for 37.5 hours per week, 42 weeks per year, in line with organisational policy.
6. The ratio of direct to indirect time was estimated based on the level of administrative and managerial work involved in each role. The following estimates were made based on discussions with service managers:
 - a. IAPT therapists band 3 to 6 (1 direct time to 1 indirect time)
 - b. IAPT therapists band 7 (1 direct time to 1.1 indirect time)
 - c. IAPT therapists band 8a to 8d (1 direct time to 2 indirect time)

- d. ICM career coaches band 5 (1 direct time to 1.4 indirect time)
- e. ICM career coaches band 6 (1 direct time to 2.3 indirect time)
- 7. The annual cost for each band was calculated as the total sum of wages, salary on-costs, overheads, and capital overheads.
- 8. The cost per hour was calculated as the annual cost divided by the number of weeks (42), then the number of hours per week (37.5).
- 9. The cost per patient-related hour was calculated by adding the hourly cost for direct time to the hourly cost for indirect time (for example, a patient-related hour for band 8a to 8d is three times the cost per hour as the ratio is 1:2 direct to indirect time).
- 10. The unit cost per minute was calculated by dividing the patient-related hour cost by 60.

A unit cost per minute of group client contact time was calculated using the following assumptions:

- 1. Service managers estimated that most IAPT groups are delivered by two therapists, usually a band 7 and a band 5 member of staff; and approximately eight clients attend per group session.
- 2. Service managers estimated that most ICM groups are delivered by two coaches, usually a band 6 and a band 5 member of staff; and approximately five clients attend per group session.
- 3. The unit cost per minute for group contact was calculated by adding the unit cost for individual client contact for both members of staff (e.g. band 7 unit cost plus band 5 unit cost), then dividing by the average number of clients per group (e.g. 8).

All IAPT and ICM unit costs are shown in Table 5.2.

Table 5.2 Unit costs of IAPT therapy and ICM intervention time

Category	Unit Type	Unit Cost (£)
IAPT individual client contact – Band 3 therapist	Per minute	1.04
IAPT individual client contact – Band 4 therapist	Per minute	1.13
IAPT individual client contact – Band 5 therapist	Per minute	1.30
IAPT individual client contact – Band 6 therapist	Per minute	1.49
IAPT individual client contact – Band 7 therapist	Per minute	1.77
IAPT individual client contact – Band 8a therapist	Per minute	2.94
IAPT individual client contact – Band 8b therapist	Per minute	3.35
IAPT individual client contact – Band 8c therapist	Per minute	3.83
IAPT individual client contact – Band 8d therapist	Per minute	4.43
ICM individual client contact – Band 5 career coach	Per minute	1.55
ICM individual client contact – Band 6 career coach	Per minute	2.45
IAPT group contact	Per minute	0.38
ICM group contact	Per minute	0.80

5.10.3.2. Hospital services

All NHS hospital contacts were costed using the National NHS Schedule of Reference Costs 2013-2014 (NHS, 2014).

Inpatient costs were categorised as 1) mental illness or 2) non-mental illness. For mental illness, a unit cost per occupied bed day for non-psychotic (severe) illness was used, found on the 'MHCC' page of the NHS Reference cost schedule. For non-mental illness, it was not possible to identify the cost per bed day, so a unit cost per episode was used. The average episode unit cost for non-

elective inpatients (short-stay) was used, and this was obtained from the 'Total HRG's' page of the schedule.

Outpatient costs for all mental illnesses and non-mental illnesses were identified for each speciality, and a unit cost per episode was used. Total unit costs were taken from the 'Total Outpatient Attendances' page of the NHS Reference cost schedule. All inpatient and outpatient unit costs are listed in Table 5.3.

Table 5.3 Unit costs of inpatient & outpatient NHS hospital services 2013-14

Category – Speciality	Unit Type	Unit Cost (£)
Inpatient – mental illness	Per occupied bed day	142.00
Inpatient – non-mental illness	Per episode	603.00
Outpatient - Psychiatry	Per episode	233.00
Outpatient - Psychology	Per episode	177.00
Outpatient - Pain management	Per episode	135.00
Outpatient - Blood Transfusion	Per episode	125.00
Outpatient - Cardiothoracic Surgery	Per episode	269.00
Outpatient - Cardiology	Per episode	131.00
Outpatient - Colorectal Surgery	Per episode	116.00
Outpatient - Dental Medicine	Per episode	119.00
Outpatient - Dermatology	Per episode	98.00
Outpatient - Diabetic Medicine	Per episode	143.00
Outpatient - Dietetics	Per episode	62.00
Outpatient - Endocrinology	Per episode	144.00
Outpatient - ENT	Per episode	92.00
Outpatient - Gastroenterology	Per episode	130.00
Outpatient - General Medicine	Per episode	157.00

Category – Speciality	Unit Type	Unit Cost (£)
Outpatient - General Surgery	Per episode	125.00
Outpatient - Genito-Urinary Medicine	Per episode	114.00
Outpatient - Gynaecology	Per episode	134.00
Outpatient - Haematology	Per episode	160.00
Outpatient - Hepatology	Per episode	188.00
Outpatient - Infectious Diseases	Per episode	219.00
Outpatient - Nephrology	Per episode	145.00
Outpatient - Neurology	Per episode	174.00
Outpatient - Neurosurgery	Per episode	181.00
Outpatient - Obstetrics	Per episode	120.00
Outpatient - Oncology	Per episode	140.00
Outpatient - Ophthalmology	Per episode	86.00
Outpatient - Oral Surgery	Per episode	115.00
Outpatient - Orthopaedics	Per episode	113.00
Outpatient - Physiotherapy	Per episode	46.00
Outpatient - Podiatry	Per episode	44.00
Outpatient - Respiratory medicine	Per episode	150.00
Outpatient - Rheumatology	Per episode	135.00
Outpatient - Thoracic Medicine/Surgery	Per episode	209.00
Outpatient - Urology	Per episode	99.00

Accident and emergency (A&E) unit costs per attendance were identified using the 'EM' page of the NHS Reference cost schedule – 'Type 01 non-admitted emergency medicine, category 1 investigation with category 1-2 treatment' was used for all unit costs, regardless of the type of illness. Ambulance costs were identified using the 'AMB' page of the schedule – 'see treat and convey' was

used for all uses of an ambulance. A&E and ambulance costs are listed in Table 5.4.

Table 5.4 A&E and ambulance unit costs

Category	Unit Type	Unit Cost (£)
Accident and emergency (A&E)	Per attendance	103.00
Ambulance	Per attendance	231.00

5.10.3.3. Community services

Unit costs of community health and social services were taken from national estimates published by the Personal Social Services Research Unit (Curtis, 2014). Where national estimates did not exist for a service, the nearest equivalent service was used. Table 5.5 shows the source used for each category of service.

Table 5.5 Community health and social service equivalent unit costs used

Category used in AD-SUS questionnaire	Equivalent category in PSSRU published unit costs
General Practitioner	General Practitioner
Practice Nurse	Nurse (GP Practice)
District Nurse, Health Visitor or Midwife	Health Visitor
Community Psychiatric Nurse	Nurse (Mental Health)
Psychiatrist in the community	Registrar Group
Psychological Therapy	Clinical Psychologist

Category used in AD-SUS questionnaire	Equivalent category in PSSRU published unit costs
Counselling	Counselling services in primary medical care
Occupational therapist	NHS Community Occupational Therapist
Art / drama / music therapy in the community	NHS Community Occupational Therapist
Social Worker	Social Worker (Adult Services)
Marriage Counselling Service	Counselling Services in primary care
Advice Service	Social Work Assistant
Day Centre	Local authority social services day care for people with mental health problems

Most of the required data was available in the PSSRU publication minus a few exceptions, where the following assumptions were made:

1. Average GP surgery appointments were assumed to be 12 minutes long and home visits were assumed to be 24 minutes (including 12 minutes travel per appointment).
2. Ratio of direct to indirect time for an Occupational Therapist and Social Work Assistant were assumed to be 1:1 as no data was available on this.

No unit cost data was available for helpline services so estimated costs were taken from a New Philanthropy Capital report on the Samaritans (NPC, 2008) which said the cost per call is £3.00. An inflator formula was used to calculate the 2013/2014 cost. The average call duration was unknown so this unit cost was per call, rather than per minute.

Similarly, unit cost data was not available for Jobcentre Plus, Work Programme or other employment services, so estimated costs were taken from a recent report of a cost-benefit analysis of the Pathways to Work programme (Department for Work and Pensions, 2008). As the source data was from the year 2005-6, an inflator formula was used to calculate the 2013/14 cost. One unit

cost was calculated for all employment services, including Jobcentre Plus, Work Programme and other employment services, as it was not possible to differentiate between them with the lack of data available. The DWP report provided some basic information however several assumptions were made where data was not available:

1. It was assumed that on costs were included in the salary costs given.
2. Capital overheads were assumed to be £2,452 based on the cost of a comparable role in the NHS (social worker).
3. It was assumed that all employment advisers worked 37.5 hours per week, 42 weeks per year.
4. It was assumed that the ratio of direct to indirect time was 1:1 as this data was not available.
5. No London multiplier formulas were used as none were listed.

All community services unit costs are listed in Table 5.6.

Table 5.6 Unit costs of all community services

Category	Unit Type	Unit Cost (£)
General Practitioner in surgery / phone	Per minute	2.91
General Practitioner at patient's home	Per minute	4.71
Practice Nurse (in GP surgery)	Per minute	0.87
District Nurse, Health Visitor or Midwife	Per minute	1.23
Community Psychiatric Nurse	Per minute	1.25
Psychiatrist in the community	Per minute	1.52
Group psychological therapy	Per minute	0.52
Individual psychological therapy	Per minute	2.59
Counselling	Per minute	1.08
Occupational therapist in the community	Per minute	1.22
Art/drama/music therapist in the community	Per minute	1.22

Category	Unit Type	Unit Cost (£)
Social Worker	Per minute	0.99
Marriage counselling service	Per minute	1.08
Advice service	Per minute	1.06
Helpline	Per call	3.39
Day Centre / drop-in centre	Per minute	0.15
Employment service	Per minute	0.95

5.10.3.4. Medication

All medications were costed using the British National Formulary for year ending March 2014 (British National Formulary, 2013). The unit costs per 1mg for all listed medications on the AD-SUS were calculated by dividing the price per pack by the number of tablets per pack, then the dose (mg) per tablet. Where necessary, unit costs that were only available for earlier financial years were inflated to 2013/14 costs using the Hospital and Community Health Services inflation indices (Curtis, 2014). The unit costs per 1mg are shown in Table 5.7.

Table 5.7 Unit costs of all medication per 1mg

Medication Name	Unit Cost per 1mg (£)
Amitriptyline	0.0012
Aripiprazole	0.2287
Citalopram	0.0017
Clobazam	0.0084
Clomipramine	0.0030
Diazepam / Valium	0.0061
Dosulepin	0.0018

Medication Name	Unit Cost per 1mg (£)
Duloxetine	0.0267
Escitalopram	0.0450
Fluoxetine / Prozac	0.0016
Lormetazepam	1.2313
Mirtazepine	0.0019
Olanzapine	0.0076
Oxazepam	0.0052
Paroxetine	0.0019
Pregabalin	0.0230
Propranolol	0.0008
Risperidone	0.0465
Sertraline	0.0010
Sulpiride	0.0010
Temazepam	0.0337
Trazodone	0.0016
Venlafaxine	0.0012
Zaleplon	0.0269
Zolpidem	0.0064
Zopiclone	0.0067

5.10.4. Estimation of productivity effects

There are a variety of methods for measuring and valuing productivity losses. In terms of measurement, two aspects of productivity are commonly considered: absenteeism and presenteeism. Absenteeism relates to time off work due to

illness. Presenteeism relates to time spent at work when productivity is reduced. The World Health Organization's Health and Work Performance Questionnaire scale records both aspects of productivity loss, although commonly only absenteeism is valued in economic evaluations. This is because presenteeism is more subjective than absenteeism, so is harder to measure accurately.

The most common method of valuing productivity losses is the human capital approach, which values time off work using the gross earnings of those in paid employment, or, more generically, a national average wage rate. However, the valuation of productivity losses on the basis of earnings has been criticised for overestimating the true value of productivity losses (Koopmanschap & Rutten, 1996). For example, in the case of short-term sickness absence, productivity losses to an organisation may be minimised by the work being covered by another employee. In the case of long-term sickness absence, an employer may hire a replacement worker, which in times of high unemployment may be at a relatively low cost option (Gray et al., 2011) and these costs can be covered by the reduction in wages paid to the individual whilst they are on long-term sick leave. For consistency with other studies, a human capital approach to valuation was applied to the valuation of absenteeism only. This involved multiplying the number of days an individual in paid employment was off work due to illness over the follow-up period by the individual's salary, converted to a daily rate. However, it needs to be acknowledged that the true cost lies somewhere between zero (effectiveness analysis excluding productivity losses) and the value estimated using the human capital approach (known to be an overestimate) (Drummond et al., 2015).

5.11. Statistical Analyses

5.11.1. Analysis Population

The principle of intention-to-treat or 'ITT' (Hollis & Campbell, 1999) was applied to the population. All participants that were randomised into the study were included in the treatment group to which they were randomised, regardless of whether or not they received the intended treatment and whether or not they completed the follow up. ITT was chosen as the strategy for the main analysis for several reasons. Firstly, ITT includes non-compliers, which are common in

actual clinical practice; excluding non-compliers could potentially overestimate the effect of the intervention. Secondly, ITT ensures that the sample size is not reduced and statistical power is not lost. Finally, ITT is recommended in the Consolidated Standards of Reporting Trials (CONSORT) guidelines for the reporting of Randomised Controlled Trials (Schulz et al., 2010).

5.11.2. Data Cleaning

Data cleaning of all baseline and follow-up data was conducted prior to the treatment group allocation variable being added to the data set. Summary statistics of each variable were reviewed to identify potential data errors. If any potential data errors were identified, original hand-written data packs from participant interviews were checked and amendments were made to the data set as necessary.

5.11.3. Missing Data

5.11.3.1. Missing baseline covariate data

Participants were not excluded from analysis due to missing baseline covariate data. Where data could not be obtained, mean values from the total sample were imputed.

5.11.3.2. Losses to follow up

The frequencies of participant losses to follow-up were reported and compared between the two groups, and baseline characteristics of participants completing and not completing follow-up were compared to assess generalisability of the included population to the randomised population. A logistic regression model was used to compare the characteristics of completers and non-completers in each treatment group, for each outcome measure.

There are many different approaches to dealing with missing data due to losses at follow up. Therefore, the principal investigator sought advice from statisticians

regarding the most appropriate method to use given the amount and type of missing data in this trial. The approach is detailed in Chapter 6 (see Section 6.4).

5.11.3.3. Item non-response in outcome measures

Item non-response was dealt with using the procedure defined in the relevant questionnaire instruction manual. On the advice of a statistician, where no instructions for item non-response existed, the data was pro-rated by calculating the average score from available items if at least 50% of the items were complete for that questionnaire. If less than 50% of the items were complete, the response to the whole questionnaire were considered incomplete and treated as missing for analysis.

5.11.4. Data Validation

Boxplot charts were created for all variables to check for outliers, as they are a useful method of visually spotting scores that are extreme or unusual to the data set. In a boxplot, 50% of all observations (the interquartile range) are shown within the 'box' and the line through the centre of the box shows the median (Sirkin, 2006). The top and bottom 25% of scores are shown as 'whiskers' above and below the box, and any outliers are shown as dots above or below the chart. If any outliers were shown, the original data was checked for errors and amended as necessary. If the outlier was found to be true and not due to an error, it was left in the data set to be included in the analysis.

Histograms, which can show the frequency distribution for a single variable, were used to check that scores were displayed in a 'normal distribution', as this is a key assumption for the test statistics required in analysis (Sirkin, 2006). Variables that did not form a normal distribution were therefore transformed using a log transformation formula for data that was positively skewed and a reverse score transformation formula for data that was negatively skewed.

5.11.5. Clinical Analysis

All primary and secondary clinical outcomes were analysed by fitting a linear regression model for continuous variables and logistic regression model for categorical variables. All analyses were complete case (excluding those lost to follow-up) and adjusted by the three factors used for stratification at randomisation (locality team, gender, and length of unemployment), the baseline value of the outcome of interest and factors found to predict 'missingness'.

5.11.6. Sensitivity Analyses

5.11.6.1. Analysis A - Missing Data Imputed from other Sources

Missing data was imputed with values from other sources where available. This included:

- PHQ9, GAD7 and WSAS scores recorded by therapists on the IAPTUS database. The nearest score recorded within 28 days before or after the follow-up date was used. Where no scores were available or the nearest score was recorded more than 28 days before or after the follow-up date, the data remained missing.
- Data was collected by questionnaire from key workers (therapist / career coach), about the occupational status of the participant, including the primary outcome. Where the key worker did not know the occupational status of the participant, the data remained missing.

5.11.6.2. Analysis B - Linear Mixed Model

On the advice of a statistician, the data was reshaped from wide format (where each time point – baseline and follow-up – is represented as a separate variable), to long format (where baseline and follow-up data is included in the same variable and a new grouping variable of 'time' is added), and a linear mixed model was fitted. In a linear mixed model, cases are not removed from the analysis if data is missing (West et al., 2014). The results of the linear mixed

model analysis were compared to the results of the main analysis to see if there were any major differences in the results.

5.11.7. Economic Evaluation

5.11.7.1. Method of economic evaluation

An economic evaluation compares the costs and consequences of alternative interventions so that a decision can be made about the best use of resources (Drummond et al., 2015). Three main methods of economic evaluation exist: cost-effectiveness analysis, cost-utility analysis and cost-benefit analysis (Robinson, 1993). All methods measure costs in monetary terms, e.g. pounds sterling, but they differ in terms of how they measure effects.

In a cost-effectiveness analysis (CEA), outcomes are measured in terms of a single, generally disease-specific, common effect that may differ in each group, such as level of improvement in a clinical outcome. This approach is relatively straightforward, using pre-existing measures developed for a specific disease or patient population, commonly the primary clinical outcome measure in a clinical trial. However, CEA is limited in that you can only compare results across studies using the same measure of outcome and it ignores other effects an intervention may have on the quality of life of participants.

Cost-utility analysis (CUA), which is a variant of cost-effectiveness analysis, tries to overcome these limitations by using a generic measure of quality of life, capable of comparison across all of health care (e.g. cancer, mental health etc.) and designed to capture much broader effects of interventions. CUA is recommended by NICE as the preferred method of economic evaluation of healthcare services in the UK. CUA requires the use of a preference-based generic measure of health-related quality of life that is capable of generating Quality Adjusted Life Years (QALYs) (Loomes & McKenzie, 1989), such as the EQ-5D, as described earlier in Section 5.9.4.9.

Cost-benefit analysis (CBA) translates consequences of interventions (e.g. clinical outcomes, QALY's) into monetary values which can be compared to the costs of the intervention in the same unit (e.g. pound sterling). Interventions can then be compared in terms of their net benefit or loss simply by taking one away

from the other (e.g. benefits minus costs) (Johannesson & Jonsson, 1991). Like CUA, CBA allows comparison across health care, but it is limited by the need to value complex health outcomes in monetary terms.

For this study, a cost-utility analysis was undertaken as the primary method of economic evaluation, because it is recommended by NICE for healthcare interventions (NICE, 2013).

QALYs were calculated using utility scores derived from the EQ-5D-3L, using tariffs for the UK population (Dolan et al., 1995) and where a linear path between health states at baseline and follow-up was assumed (Manca et al., 2005).

5.11.7.2. Service use

The use of services over follow-up between groups are tabulated but not compared statistically, to avoid the problem of multiple significance testing and because the focus of the economic analysis is on cost and cost-effectiveness. Service use data is presented as means and standard deviations by group, and the proportion of the patient population using each category of service.

5.11.7.3. Costs

Differences in mean total costs between randomised groups were compared using standard parametric t-tests, despite the fact that cost data commonly have a skewed distribution (e.g. large number of low service users and small number of very high service users). This is because of the preference for inferences to be made about the mean cost in the presentation of cost data (Barber & Thompson, 1998). In order to test the robustness of these parametric comparisons, bootstrapped confidence intervals for differences in costs are also presented (Barber & Thompson, 2000).

Cost-effectiveness was then considered through the calculation of the incremental cost effectiveness ratio (ICER), which is the difference in mean costs divided by difference in mean effects (Drummond et al., 2015). Non-parametric bootstrapping was used to generate incremental mean costs and effects for the two group conditions (ICM and TAU), and this was then used to calculate the

probability that each condition was the optimal choice, subject to a range of willingness to pay values for additional QALYs. The maximum value was £30,000, as per the NICE cost per QALY threshold of £20,000 to £30,000 (NICE, 2013). The probability of cost-effectiveness for the willingness to pay values were plotted on a cost-effectiveness acceptability curve (CEAC). The CEAC shows graphically the probability that ICM is cost-effective for the full range of values that a UK decision maker might be willing to pay for a QALY (Fenwick & Byford, 2005).

5.11.7.4. Sensitivity analyses

As mentioned above in section 5.10.1, a sensitivity analysis was taken from the NHS/PSS perspective only, with productivity losses removed. No other analyses were planned.

6. Clinical Results

6.1. Participant Flow

Participant flow is outlined in the CONSORT diagram in Figure 6.1. Five hundred and forty six patients were referred to the CAREER study over the 30 months of recruitment and assessed for eligibility. Fifty two per cent of patients referred (n=285) were excluded because they were ineligible (n=137), chose not to participate (n=74) or failed to respond to contact (n=74).

Two hundred and sixty one participants entered the study and were randomised to the ICM group (n=129) or TAU group (n=132).

Eighty seven per cent of participants (n=226) received at least one session of their allocated intervention. Reasons for not receiving the intervention are shown in Table 6.1.

Fifty four per cent of participants (n=141) completed their full face-to-face follow up interview. An additional 27% of participants (n=71) were followed-up by telephone and completed a phone interview that consisted of the primary outcome measure, secondary outcome measures relating to occupational activity, and service use over the follow-up period. Nineteen per cent of participants (n=49), were lost to follow-up.

Figure 6.1 - Participant Flow Chart for CAREER Study

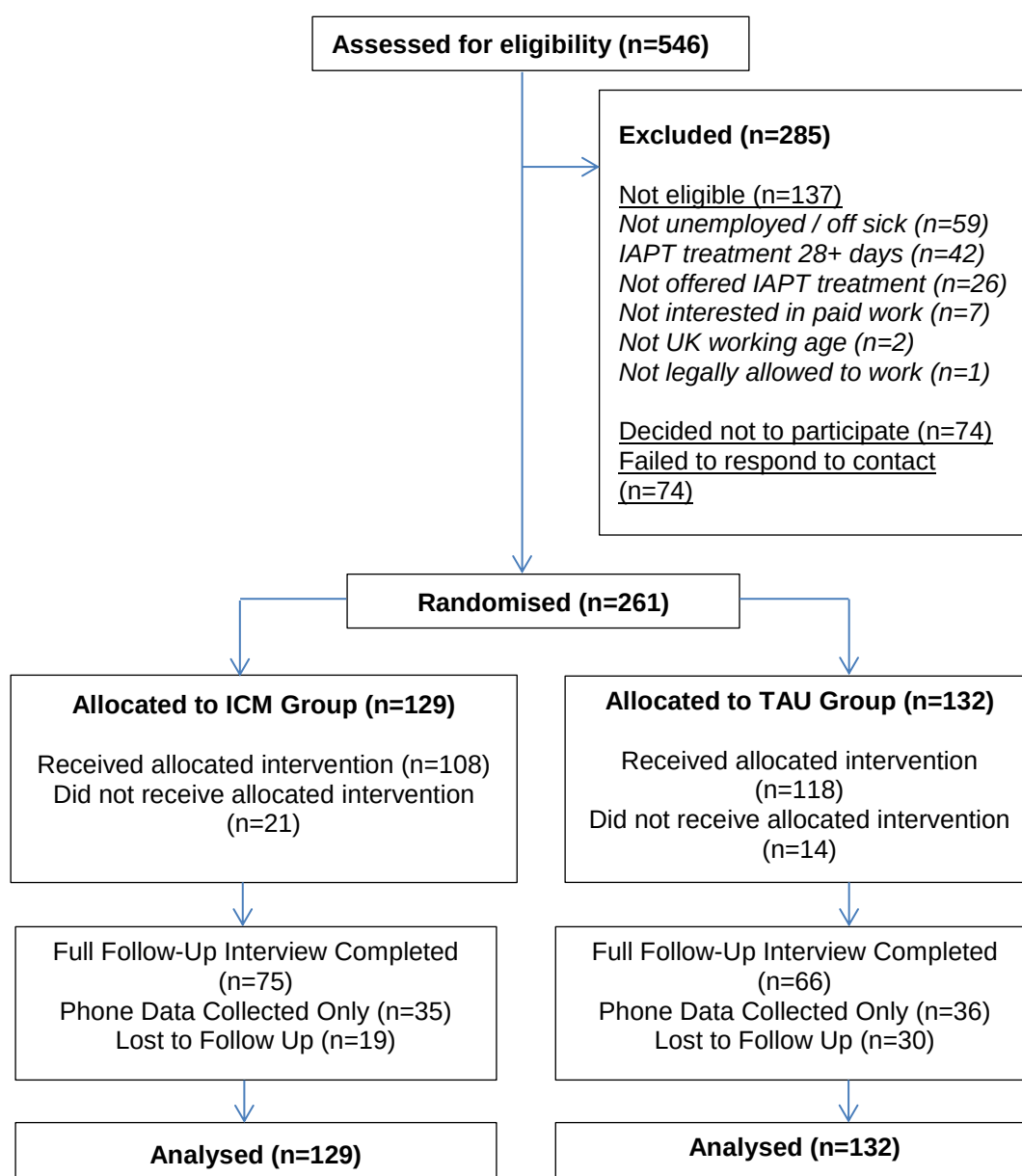


Table 6.1 Reasons for not receiving allocated intervention

	ICM group (n=129)	TAU group (n=132)
Reasons for not receiving IAPT		
Still on waiting list	1 (1%)	2 (2%)
Discharged	7 (5%)	1 (1%)
Failed/declined to attend	8 (6%)	11 (8%)
Reasons for not receiving ICM		
Failed/declined to attend	8 (6%)	N/A

6.2. Participant Characteristics

Table 6.2 describes the baseline sociodemographic variables and baseline outcome variables of the ICM and TAU groups. The average age of participants was 40 years old and the average length of unemployment was 3 years. Thirty-eight percent were male, and sixty-two percent were female. The largest ethnic group was White British (43%), followed by Black/Black British (24%), White Other (15%), Other Ethnic Group (10%), and Asian/Asian British (6%); 2% chose not to state their ethnicity. Forty-two percent of participants had a degree-level qualification or higher, followed by A-level or equivalent (24%), GCSE Grade A* to C (18%), and GCSE Grade D or below (16%).

Seventy-two percent of participants were in receipt of benefits: 48% received a 'seeking work' benefit such as Jobseekers Allowance, 15% received an 'unable to work' benefit such as Incapacity Benefit, 8% received sickness benefit, and 1% did not know the name of their benefit.

Participants were fairly equally spread across the four locality teams (South East 29%, South West 24%, North West 23%, North East 18%), although very few came from the primary care team (6%). Fifty-nine percent of participants had a diagnosis on their clinical record, of which 32% were mood (affective) disorders,

25% were neurotic, stress-related and somatoform disorders, and 2% were another diagnosis. All other participants had no diagnosis on their clinical record.

Thirty-one percent of participants had worked in competitive employment in the last six months; the average length of employment during this period was 17 weeks. Average working hours per week were 38, and the average gross annual salary was £23,906. The most common job level was 2 (46%), followed by level 3 (23%) and level 4 (23%), then level 1 (8%) (see section 5.8.2 for explanation of levels). Of those whose job had ended within the 6 month period, 53% resigned or retired, whilst 37% were dismissed or made redundant. Twenty-three percent of participants were in some form of occupational activity (e.g. work, training or volunteering) at baseline. On a scale of 1-10, the average self-rated level of work motivation was 9.

There were no significant differences in sociodemographic or outcome variables between groups at baseline.

Table 6.2 Participant characteristics and outcomes at baseline

Mean (SD) or number (%)	ICM Group	TAU Group	Total	p value
Participant Characteristics				
Age in years	40 (10.38)	41 (10.43)	40 (40.02)	0.409
Length of unemployment in months	39 (65.41)	33 (48.98)	36 (57.64)	0.451
Level of work motivation (1-10)	9 (1.62)	9 (1.57)	9 (1.59)	0.690
Gender				
Male	51 (40)	49 (37)	100 (38)	0.690
Female	78 (60)	83 (63)	161 (62)	
Ethnic Group				
White British	55 (43)	56 (42)	111 (43)	0.558
White Other	22 (17)	18 (14)	40 (15)	
Black / Black British	28 (22)	36 (27)	64 (24)	
Asian / Asian British	8 (6)	7 (5)	15 (6)	
Other Ethnic Group	13 (10)	13 (10)	26 (10)	
Not Stated	3 (2)	2 (2)	5 (2)	

Mean (SD) or number (%)	ICM Group	TAU Group	Total	p value
Highest Educational Qualification				
GCSE Grade D or below	17 (13)	24 (18)	41 (16)	0.273
GCSE Grade A* to C	25 (19)	22 (17)	47 (18)	
A-Level or equivalent	27 (21)	36 (27)	63 (24)	
Degree	38 (30)	37 (28)	75 (29)	
Postgraduate qualification	22 (17)	13 (10)	35 (13)	
Primary Benefit				
‘Seeking work’ benefit (e.g. Jobseekers Allowance)	59 (46)	66 (50)	125 (48)	0.563
‘Unable to work’ benefit (e.g. Incapacity Benefit)	21 (16)	19 (14)	40 (15)	
Employed (sickness) benefit (e.g. stat. sick pay)	12 (9)	8 (6)	20 (8)	
Name of benefit unknown	1 (1)	1 (1)	2 (1)	
Not in receipt of benefits	36 (28)	38 (29)	74 (28)	
Locality Team				
North West Southwark	30 (23)	31 (23)	61 (23)	0.933
North East Southwark	24 (19)	24 (18)	48 (18)	
South West Southwark	29 (22)	33 (25)	62 (24)	

Mean (SD) or number (%)	ICM Group	TAU Group	Total	p value
South East Southwark	37 (29)	38 (29)	75 (29)	
Primary Care Southwark	9 (7)	6 (5)	15 (6)	
Diagnosis				
Mood (affective) disorders	47 (36)	37 (28)	84 (32)	0.598
Neurotic, stress-related and somatoform disorders	33 (26)	31 (24)	64 (25)	
Other diagnosis	2 (2)	3 (2)	5 (2)	
No diagnosis	47 (36)	61 (46)	108 (41)	
Outcome variables				
Competitive Employment in last 6 months (yes)	42 (33)	38 (29)	80 (31)	0.511
Length of Employment in weeks*	16 (9.00)	17 (7.51)	17 (8.28)	0.761
Working Hours Per Week*	37 (16.54)	38 (15.15)	38 (15.80)	0.417
Estimated Gross Annual Salary (£)*	25,179 (18,597)	22,500 (14,190)	23,906 (16,602)	0.483
Job Level*				
Level 1	3 (7)	4 (10)	7 (8)	0.780
Level 2	18 (43)	19 (50)	37 (46)	
Level 3	12 (29)	6 (16)	18 (23)	

Mean (SD) or number (%)	ICM Group	TAU Group	Total	p value
Level 4	9 (21)	9 (24)	18 (23)	
Reason for leaving employment*				
Dismissed or redundant	13 (50)	11 (44)	24 (47)	0.365
Resigned or retired	13 (50)	14 (56)	27 (53)	
Currently in occupational activity (e.g. work, training, volunteering)	30 (23)	30 (23)	60 (23)	0.920
Job Satisfaction (WRQoL)*	3.68 (0.41)	3.58 (0.39)	3.64 (0.40)	0.503
Return to Work Self Efficacy (RTW-SE)	3.59 (1.19)	3.82 (1.17)	3.71 (1.18)	0.108
Career Search Efficacy (CSES)	4.22 (1.77)	4.58 (1.84)	4.40 (1.81)	0.109
Self Esteem (SE)	23.02 (5.50)	23.90 (5.78)	23.46 (5.65)	0.210
Depression (PHQ9)	14.17 (6.60)	13.71 (6.95)	13.94 (6.77)	0.585
Anxiety (GAD7)	11.73 (5.94)	11.70 (5.76)	11.72 (5.85)	0.974
Social Functioning (WSAS)	20.14 (9.26)	19.70 (9.53)	19.92 (9.38)	0.709
Quality of Life (EQ5D Tariff)	0.57 (0.31)	0.54 (0.32)	0.56 (0.31)	0.422
Quality of Life (EQVAS score)	54.17 (22.24)	55.19 (20.99)	54.69 (21.58)	0.706

*Figures shown are for those that worked in the last 6 months only.

6.3. Losses to Follow Up

There were no statistically significant differences between the ICM group and TAU group in terms of losses to follow up, although the ICM group had a slightly higher follow up rate. Overall, 54% of participants completed the full face-to-face follow up interview (TAU = 50%; ICM = 58%); 27% completed the phone follow up interview (TAU = 27%; ICM = 27%); and 19% were lost to follow up (TAU = 23%; ICM = 15%).

A comparison of baseline characteristics using individual logistic regression analyses revealed some significant differences between those that completed follow up and those that were missing. Two different analyses were completed: 1) a comparison of baseline characteristics between participants that attended 'full follow up' and those that did not (Table 6.3); and 2) a comparison of baseline characteristics between participants that attended 'any follow up' (full follow up or phone follow up) and those that did not (Table 6.4).

Variables with differences that were statistically significant were deemed to predict 'missingness'. Participants were more significantly likely to be missing from the full follow up interview if they had a longer length of unemployment (average 44 months unemployed vs 29 months unemployed), a higher level of depression (mean PHQ9 score of 14.98 vs 13.06), a higher level of anxiety (mean GAD7 score of 12.87 vs 10.74), and a lower quality of life (mean EQ5D tariff score of 0.50 vs 0.61).

When those that attended 'any follow up' (face to face interview or phone interview) were compared to those that were completely missing to follow up, participants most likely to be missing were still those who had a longer length of unemployment (49 months vs 33 months), higher level of depression (mean PHQ9 score of 15.29 vs 13.63), higher level of anxiety (mean GAD7 score of 13.10 vs 11.40), and lower quality of life (mean EQ5D score of 0.58 vs 0.48). However, only the difference in quality of life was statistically significant; the other three differences were not significant.

All statistical analyses were therefore adjusted by length of unemployment, PHQ9 score, GAD7 score, and EQ5D Tariff score in addition to the stratification variables and the baseline variable of interest.

Table 6.3 - Comparison of baseline characteristics between participants that attended full follow-up and those that did not

	Full Follow Up Mean (SD) or n (%)	Phone Follow Up / Lost Mean (SD) or n (%)	Coefficient	95% CI	p-value
Allocation Group			0.33	-0.16 to 0.82	0.188
ICM	75 (53%)	54 (45%)			
TAU	66 (47%)	66 (55%)			
Age (years)	41 (10.26)	39 (10.46)	2.30	-0.23 to 4.84	0.075
Length of Unemployment (months)	29.20 (49.00)	43.70 (65.73)	-14.50	-28.51 to -0.49	0.043
Level of Work Motivation (1-10)	8.98 (1.51)	8.80 (1.68)	-0.01	-0.02 to 0.00	0.182
Gender			0.00	-0.12 to 0.12	0.995
Male	54 (38%)	46 (38%)			
Female	87 (62%)	74 (62%)			
Ethnic Group			0.02	-0.06 to 0.10	0.640
White British	59 (42%)	52 (43%)			
White Other	23 (16%)	17 (14%)			
Black / Black British	33 (23%)	31 (26%)			
Asian / Asian British	8 (6%)	7 (6%)			
Other Ethnic Group	16 (12%)	10 (8%)			
Not Stated	2 (1%)	3 (3%)			
Highest Educational Qualification			-0.02	-0.09 to 0.05	0.594
GCSE Grade D or below	18 (13%)	23 (19%)			
GCSE Grade A* to C	18 (13%)	29 (24%)			
A-Level of equivalent	33 (23%)	30 (25%)			
Degree	48 (34%)	27 (23%)			
Postgraduate qualification	24 (17%)	11 (9%)			

	Full Follow Up Mean (SD) or n (%)	Phone Follow Up / Lost Mean (SD) or n (%)	Coefficient	95% CI	p-value
Primary Benefit			-0.01	-0.09 to 0.08	0.885
'Seeking work' benefit	61 (43%)	64 (53%)			
'Unable to work' benefit	19 (14%)	21 (18%)			
Employed (sickness benefit)	11 (8%)	9 (7%)			
Name of benefit unknown	2 (1%)	0 (0%)			
Not in receipt of benefits	48 (34%)	26 (22%)			
Locality Team			0.01	-0.07 to 0.09	0.834
North West Southwark	28 (20%)	33 (27%)			
North East Southwark	23 (16%)	25 (21%)			
South West Southwark	36 (26%)	26 (22%)			
South East Southwark	47 (33%)	28 (23%)			
Primary Care	7 (5%)	8 (7%)			
Diagnosis			0.02	-0.07 to 0.11	0.642
Mood (affective) disorder	44 (31%)	40 (33%)			
Neurotic, stress-related disorder	36 (26%)	28 (23%)			
Other diagnosis	2 (1%)	3 (3%)			
No diagnosis	59 (42%)	49 (41%)			
Competitive Employment in Last 6 Months	47 (33%)	33 (28%)	0.28	-0.26 to 0.81	0.310
Job Satisfaction (1-5)	3.56 (0.39)	3.73 (0.41)	-0.18	-0.47 to 0.12	0.234
Return to Work Self Efficacy (1-6)	3.74 (1.17)	3.66 (1.19)	0.08	-0.21 to 0.37	0.581
Career Search Efficacy (0-9)	4.37 (1.74)	4.43 (1.90)	-0.05	-0.50 to 0.39	0.813
Self Esteem (1-40)	23.63 (5.39)	23.27 (5.97)	0.37	-1.02 to 1.75	0.605
Depression (0-27)	13.06 (6.39)	14.98 (7.08)	-1.92	-3.56 to -0.28	0.022

	Full Follow Up Mean (SD) or n (%)	Phone Follow Up / Lost Mean (SD) or n (%)	Coefficient	95% CI	p-value
Anxiety (0-21)	10.74 (5.62)	12.87 (5.93)	-2.13	-3.54 to -0.72	0.003
Social Functioning (0-40)	19.01 (9.31)	20.99 (9.39)	-1.98	-4.27 to 0.30	0.089
Quality of Life (EQ-5D Tariff score) (0-1)	0.61 (0.28)	0.50 (0.34)	0.11	0.03 to 0.18	0.007
Quality of Life (EQVAS score) (0-100)	56.53 (21.42)	52.52 (21.65)	4.01	-1.26 to 9.27	0.135

Table 6.4 - Comparison of baseline characteristics between participants that attended Any Follow Up and those that did not

	Any Follow Up Mean (SD) or n (%)	Lost to Follow Up Mean (SD) or n (%)	Coefficient	95% CI	p-value
Allocation Group			0.53	-0.10 to 1.17	0.100
ICM	110 (52%)	19 (39%)			
TAU	102 (48%)	30 (61%)			
Age (years)	40 (10.21)	38 (11.10)	2.21	-1.03 to 5.45	0.181
Length of Unemployment (months)	32.90 (57.08)	48.71 (58.90)	-15.82	-33.74 to 2.10	0.083
Level of Work Motivation (1-10)	8.96 (1.59)	8.65 (1.60)	-0.01	-0.02 to 0.01	0.567
Gender			-0.07	-0.22 to 0.08	0.368
Male	84 (40%)	16 (33%)			
Female	128 (60%)	33 (67%)			
Ethnic Group			-0.01	-0.12 to 0.10	0.881
White British	90 (43%)	21 (43%)			
White Other	32 (15%)	8 (16%)			
Black / Black British	55 (26%)	9 (19%)			
Asian / Asian British	11 (5%)	4 (8%)			
Other Ethnic Group	21 (10%)	5 (10%)			
Not Stated	3 (1%)	2 (4%)			
Highest Educational Qualification			-0.02	-0.04 to 0.01	0.284
GCSE Grade D or below	29 (14%)	12 (24%)			
GCSE Grade A* to C	34 (16%)	13 (27%)			
A-Level of equivalent	50 (23%)	13 (27%)			
Degree	65 (31%)	10 (20%)			
Postgraduate qualification	34 (16%)	1 (2%)			

	Any Follow Up Mean (SD) or n (%)	Lost to Follow Up Mean (SD) or n (%)	Coefficient	95% CI	p-value
Primary Benefit			-0.01	-0.12 to 0.10	0.887
'Seeking work' benefit	95 (45%)	30 (61%)			
'Unable to work' benefit	30 (14%)	10 (21%)			
Employed (sickness benefit)	19 (9%)	1 (2%)			
Name of benefit unknown	2 (1%)	0 (0%)			
Not in receipt of benefits	66 (31%)	8 (16%)			
Locality Team			-0.02	-0.12 to 0.09	0.756
North West Southwark	51 (24%)	10 (20%)			
North East Southwark	39 (19%)	9 (18%)			
South West Southwark	47 (22%)	15 (31%)			
South East Southwark	64 (30%)	11 (23%)			
Primary Care	11 (5%)	4 (8%)			
Diagnosis			-0.03	-0.15 to 0.09	0.616
Mood (affective) disorder	71 (33%)	13 (27%)			
Neurotic, stress-related disorder	52 (25%)	12 (24%)			
Other diagnosis	4 (2%)	1 (2%)			
No diagnosis	85 (40%)	23 (47%)			
Competitive Employment in Last 6 Months	69 (33%)	11 (23%)	0.51	-0.22 to 1.24	0.170
Job Satisfaction (1-5)	3.60 (0.40)	3.40 (0.21)	0.09	-0.28 to 0.45	0.652
Return to Work Self Efficacy (1-6)	3.72 (1.17)	3.64 (1.21)	0.09	-0.28 to 0.45	0.652
Career Search Efficacy (0-9)	4.47 (1.79)	4.11 (1.88)	0.36	-0.20 to 0.93	0.209
Self Esteem (1-40)	23.66 (5.58)	22.71 (6.13)	0.92	-0.84 to 2.69	0.304
Depression (0-27)	13.63 (6.51)	15.29 (7.72)	-1.66	-3.77 to 0.45	0.122

	Any Follow Up Mean (SD) or n (%)	Lost to Follow Up Mean (SD) or n (%)	Coefficient	95% CI	p-value
Anxiety (0-21)	11.40 (5.76)	13.10 (6.10)	-1.71	-3.52 to 0.11	0.066
Social Functioning (0-40)	19.72 (9.35)	20.80 (9.59)	-1.08	-4.01 to 1.85	0.469
Quality of Life (EQ-5D Tariff score) (0-1)	0.58 (0.30)	0.48 (0.34)	0.10	0.00 to 1.20	0.044
Quality of Life (EQVAS score) (0-100)	55.13 (21.49)	52.75 (22.08)	2.39	-4.35 to 9.13	0.486

6.4. Data Validation

6.4.1. Data Completeness

Participants that were lost to follow up were treated as missing for the analysis. All available baseline and follow up data for those that were not lost to follow-up were checked for item completeness. Most items were 100% complete, and those items that were not 100% complete had only 1-2 values missing. Missing values were imputed with a pro-rated value, as outlined in Section 5.11.3.

6.4.2. Data Spread

The data spread of all variables was checked for potential bias, as outlined in Section 5.11.4. Histograms and boxplots were used to detect outliers, and histograms were also used to check normality of the distribution. Data that had high levels of skewness or kurtosis were transformed using the following methods:

- Baseline Variable '*Length of Unemployment*' was corrected using a Log transformation due to positive skew and positive kurtosis. A constant of +1 was used due to zeros being present in the data.
- Baseline and Follow Up Variables for '*Length of Competitive Employment*' were corrected using a Square Root transformation. This transformation increased positive skew but reduced kurtosis, resulting in a distribution that was closer to normal. The Log transformation was not applied because it dramatically increased the levels of skewness and kurtosis.

6.5. Main Treatment Effect

6.5.1. Primary Outcome - Competitive Employment

Seventy-two (34%) out of 212 participants with follow-up data worked for one day or more during the follow-up period in a job that met the criteria for competitive employment. By group, 37 out of 110 (34%) were from the ICM group and 35 out of 102 (34%) were from the TAU group. A logistic regression analysis controlling for the pre-specified baseline factors revealed that the effect of the intervention was not statistically significant ($t = 0.12$, $p = 0.906$).

Significant predictors of competitive employment at follow up were found to be competitive employment in the previous 6 months at baseline ($t = 3.27$, $p = 0.001$); and a shorter length of unemployment at baseline ($t = 4.26$, $p = 0.001$).

6.5.2. Secondary Outcomes – Employment Related Outcomes

Employment related outcomes for the 72 people that worked were compared between groups and the results are reported in Table 6.6. The results revealed some slight differences between groups that were not statistically significant.

The average time to employment was approximately 3 months for both groups (ICM 96 days; TAU 92 days) and the mean length of competitive employment during the follow-up period was slightly shorter for the ICM group (12 weeks) compared to the TAU group (13 weeks). On average, participants in the ICM group also worked slightly less hours per week (ICM 31 hours; TAU 38 hours), had a slightly lower level of job satisfaction (WRQoL score: ICM 2.76; TAU 3.11), a slightly higher level of absenteeism (relative absenteeism score: ICM 0.30; TAU 0.27), and a slightly lower level of performance at work (relative presenteeism score: ICM 0.93; TAU 1.08), than the TAU group over the follow-up period.

Those in the ICM group earned slightly more than the TAU group (gross annual salary: ICM £20,068; TAU £18,824), and had slightly higher level occupations (level 3 or above: ICM 59%; TAU 45%). These findings may indicate that although the ICM group participants were in higher paid roles, their wellbeing at work was potentially lower than those in the TAU group. However these

differences were so slight and the sample size was small (ICM 37; TAU 35), that it is hard to draw any firm conclusions from this data.

6.5.3. Secondary Outcomes – Employability

Employability outcomes including occupational status, occupational activity, career search efficacy, return to work self-efficacy and self-esteem were compared between groups and the results are reported in Table 6.7. Overall, results were better on all employability outcomes for those in the ICM group compared to the TAU group.

ICM group participants were statistically more likely to have done at least 1 day of occupational activity during the follow-up period (ICM 76%; TAU 62%; $z = 2.59$; $p = 0.010$) and had a statistically higher level of career search efficacy (ICM mean 5.58, S.D. 1.97; TAU mean 4.55, S.D. 1.98; $t = 3.65$; $p = 0.000$), return-to-work self-efficacy (ICM mean 4.11, S.D. 1.07; TAU mean 3.66, S.D. 0.96; $t = 2.63$; $p = 0.010$), and self-esteem (ICM mean 27.12, S.D. 5.44; TAU mean 25.97, S.D. 5.31; $t = 1.94$; $p = 0.054$) than TAU group participants. Participants in the ICM group were also more likely to be in any occupational activity (work, training or volunteering) at follow-up (41%) compared to those in the TAU group (32%), although this difference was not significant.

These findings demonstrate that the ICM intervention improved the level of employability for the ICM group, compared to TAU.

Table 6.5 Difference between ICM group and TAU group on primary outcome measure at 6 month follow up

	ICM Group n (%)	TAU Group n (%)	Coefficient	95% CI	p-value
Competitive employment within 6 months	37 (34%)	35 (34%)	0.01	-0.10 to 0.13	0.845

Table 6.6 Difference between ICM group and TAU group on secondary employment-related measures at 6 month follow up

	ICM Group Mean (SD) or n (%)	TAU Group Mean (SD) or n (%)	Coefficient	95% CI	p-value
Time to employment in days	95.59 (46.21)	92.07 (55.77)	2.82	-24.94 to 30.59	0.839
Length of competitive employment in weeks	11.68 (8.38)	12.66 (9.32)	-0.05	-0.21 to 0.11	0.529
Level of occupation (job type)			0.35	-0.06 to 0.76	0.091
Level 1	1 (3%)	2 (6%)			
Level 2	14 (38%)	17 (49%)			
Level 3	10 (27%)	11 (31%)			
Level 4	12 (32%)	5 (14%)			
Working hours per week	30.92 (14.71)	37.92 (17.72)	-5.42	-14.83 to 4.00	0.250
Gross annual salary (£)	20,068 (16,567)	18,824 (10,539)	-1009.24	-6603.82 to 4585.39	0.715
Number of jobs held	1.22 (0.48)	1.17 (0.45)	0.18	-0.18 to 0.54	0.311
Job satisfaction (WRQoL) score¹	2.76 (0.73)	3.11 (0.85)	-0.54	-2.95 to 1.86	0.523
Relative absenteeism score²	0.30 (0.37)	0.27 (0.34)	-0.17	-1.03 to 0.69	0.648
Relative presenteeism score¹	0.93 (0.32)	1.08 (0.44)	-0.32	-1.94 to 1.29	0.607

Table 6.7 Difference between ICM group and TAU group on measures of employability at 6 month follow up

	ICM Group Mean (SD) or n (%)	TAU Group Mean (SD) or n (%)	Coefficient	95% CI	p-value
Occupational status			0.11	-0.01 to 0.23	0.065
In occupational activity (e.g. work, training, volunteering)	45 (41%)	32 (32%)			
No activity (e.g. unemployed)	64 (59%)	70 (68%)			
At least 1 day of occupational activity	84 (76%)	63 (62%)	0.16	0.04 to 0.28	0.010
Career search efficacy (CSES) score¹	5.58 (1.97)	4.55 (1.98)	1.12	0.51 to 1.73	0.000
Return to work self-efficacy (RTW-SE) score¹	4.11 (1.07)	3.66 (0.96)	0.47	0.12 to 0.83	0.010
Self Esteem (SE) score¹	27.12 (5.44)	25.97 (5.31)	1.45	-0.03 to 2.92	0.054

¹ Higher scores indicate better results

² Higher scores indicate worse results

6.5.4. Secondary Outcomes – Anxiety and Depression

Anxiety and depression outcomes were compared between groups and results are summarised in Table 6.8. Overall, levels of anxiety and depression were improved for those in the ICM group compared to the TAU group.

ICM group participants had a lower level of anxiety (ICM mean 7.13; TAU mean 7.94; both categorised as 'mild anxiety') and a lower level of depression (ICM mean 8.74 'mild depression'; TAU mean 10.31 'moderate depression') than those in the TAU group. Although the difference in depression scores was greater than the difference in anxiety scores, neither difference were statistically significant.

A higher proportion of participants in the ICM group achieved a statistically reliable change in anxiety (45%) compared to the TAU group (39%) but the difference was not significant. However a greater difference was found in the proportion of ICM group participants achieving a statistically reliable change in depression (45%) compared to TAU participants (25%) and this difference was found to be statistically significant ($z = 2.18$; $p = 0.031$)

These results indicate that the ICM intervention may have more of a positive effect on levels of depression than anxiety.

6.5.5. Secondary Outcomes – Health Related Quality of Life

Health related quality of life outcomes were compared between groups and the results are reported in Table 6.9. The results revealed some slight differences in favour of the ICM group that were not significant.

ICM group participants had a lower impairment to social functioning (ICM mean 13.85; TAU mean 15.26), and a higher perceived health state measured by the EQ-5D tariff (ICM mean 0.69; TAU mean 0.66) and the EQVAS scale (ICM mean 63.83; TAU mean 61.97). Although these results indicate that the ICM group had better health related quality of life outcomes than the TAU group, none of these differences were significant so no firm conclusions can be drawn from this data.

Table 6.8 - Difference between ICM group and TAU group on measures of anxiety and depression at 6 month follow up

	ICM Group Mean (SD) or n (%)	TAU Group Mean (SD) or n (%)	Coefficient	95% CI	p-value
Anxiety (GAD7 score)²	7.13 (5.73)	7.94 (5.74)	-0.36	-2.02 to 1.35	0.694
Anxiety (Statistically Reliable Change)	34 (45%)	25 (39%)	0.05	-0.11 to 0.21	0.544
Depression (PHQ9 score)²	8.74 (7.09)	10.31 (6.85)	-1.12	-3.10 to 0.86	0.264
Depression (Statistically Reliable Change)	33 (45%)	16 (25%)	0.16	0.02 to 0.31	0.031

¹ Higher scores indicate better results

² Higher scores indicate worse results

Table 6.9 - Difference between ICM group and TAU group on measures of social functioning and health related quality of life at 6 month follow up

	ICM Group Mean (SD) or n (%)	TAU Group Mean (SD) or n (%)	Coefficient	95% CI	p-value
Social functioning (WSAS score)²	13.85 (9.87)	15.26 (10.29)	-1.33	-4.15 to 1.50	0.355
Quality of life (EQ-5D Tariff)¹	0.69 (0.29)	0.66 (0.27)	0.01	-0.07 to 0.09	0.786
Quality of life (EQVAS score)¹	63.83 (21.37)	61.97 (19.86)	2.66	-3.45 to 8.76	0.391

¹ Higher scores indicate better results

² Higher scores indicate worse results

6.6. Sensitivity Analyses

6.6.1. Additional Data

A sensitivity analysis was carried out with data that included additional values from key sources that were missing at follow up, and a comparison of these results with the main analysis can be found in Table 6.10.

The outcomes of competitive employment, occupational status and occupational activity were obtained for 24 of the 49 missing participants via key worker questionnaires (resulting in a reduction in missing data from 19% to 10%); and the outcomes of depression, anxiety and social functioning were obtained for 28 of the 121 missing participants via the IAPTus clinical database record (resulting in a reduction of missing data from 46% to 36%). These outcomes were added to the original data set and the same regression models from the main analysis were fitted.

The sensitivity analysis revealed that the additional data increased the p values for most outcomes: competitive employment (from $p = 0.845$ to $p = 0.830$), occupational status (from $p = 0.065$ to $p = 0.043$), depression (from $p = 0.264$ to $p = 0.240$) and social functioning (from $p = 0.355$ to $p = 0.135$); however the p value decreased for anxiety (from $p = 0.694$ to $p = 0.981$), and remained almost identical for occupational activity (from $p = 0.010$ to $p = 0.011$). Only one result changed from non-significant to significant after the inclusion of additional data: a significantly higher proportion of participants in the ICM group were in occupational activity at follow-up compared to those in the TAU group (ICM 40%; TAU 31%; $z = 2.03$; $p = 0.043$).

The direction of results on all outcomes were unchanged, as participants in the ICM group were still more likely to have a lower level of anxiety (ICM mean 7.49; TAU mean 8.15), a lower level of depression (ICM mean 9.15; TAU mean 10.77), and a lower impairment to social functioning (ICM mean 14.02; TAU mean 16.04) than those in the TAU group, and they were also more likely to be in occupational activity at follow-up (ICM 40%; TAU 31%) and have done at least one day of occupational activity during follow up (ICM 73%; TAU 59%) than those in the TAU group. There was still no difference between groups in those entering competitive employment (ICM 32%; TAU 32%).

The mean results of all outcomes (for both groups combined) were worse in the sensitivity analysis compared to the main analysis: competitive employment reduced from 34% to 32%, occupational status reduced from 36.5% to 35.5%, occupational activity reduced from 69% to 66%, anxiety increased from 7.54 to 7.83, depression increased from 9.53 to 9.96, and impairment to social functioning increased from 14.56 to 15.03.

Three conclusions could therefore be drawn from the sensitivity analysis:

1. The additional data increased the statistical power of the analysis due to the larger sample size.
2. Those that were missing at follow-up were more likely to have worse outcomes than those attending follow-up, as suggested in Section 6.3.
3. The direction of results remained unchanged for all outcomes after the additional data was imputed, which supports the findings of the main analysis.

6.6.2. Linear Mixed Model

The data for all outcomes with a high loss to follow-up (e.g. 46% missing) was restructured from 'wide' format into 'long' format in SPSS and a linear mixed model was fitted to the data as a sensitivity analysis. The results of the sensitivity analysis, reported in Table 6.11, did not give a substantively different result to the main analysis, apart from an almost significant difference in depression scores, in favour of ICM ($p = 0.085$) compared to the previous p value ($p = 0.264$), and a less significant difference in self-esteem scores ($p = 0.070$) compared to the previous value ($p = 0.054$).

The purpose of the linear mixed model was to see if the imputation of missing data made a difference to the results. As only a minimal difference was found and the statistical significance of results remained unchanged, it was concluded that the imputation of missing data (using a method such as multiple imputation) would not be of value to the CAREER study and therefore no further sensitivity analyses would be conducted.

Table 6.10 - Results of sensitivity analysis compared to main analysis

	Main Analysis				Sensitivity Analysis			
	ICM m (s.d.) / n (%)	TAU m (s.d.) / n (%)	z / t	p	ICM m (s.d.) / n (%)	TAU m (s.d.) / n (%)	z / t	p
Competitive Employment	37 (34%)	35 (34%)	0.20	0.845	41 (32%)	35 (32%)	0.21	0.830
Occupational Status			1.85	0.065			2.03	0.043
In occupational activity (e.g. work, training, volunteering)	45 (41%)	32 (32%)			51 (40%)	33 (31%)		
No activity (e.g. unemployed)	64 (59%)	70 (68%)			77 (60%)	75 (69%)		
Occupational Activity	84 (76%)	63 (62%)	2.59	0.010	93 (73%)	64 (59%)	2.57	0.011
Anxiety	7.13 (5.73)	7.94 (5.74)	-0.39	0.694	7.49 (5.76)	8.16 (5.79)	-0.02	0.981
Depression	8.74 (7.09)	10.31 (6.85)	-1.12	0.264	9.15 (7.03)	10.77 (6.97)	-1.18	0.240
Social Functioning	13.85 (9.87)	15.26 (10.29)	-0.93	0.355	14.02 (9.93)	16.04 (10.19)	-1.50	0.135

Table 6.11 - Results of linear mixed model results compared to main analysis

	Main Analysis			Linear Mixed Model		
	t	Std. Error	p	B	Std. Error	p
Job Satisfaction (WRQoL)	-0.72	0.755	0.523	-0.20	0.333	0.558
Return to Work Self Efficacy (RTW-SE)	2.63	0.179	0.010	0.42	0.179	0.020
Career Search Efficacy (CSES)	3.65	0.307	0.000	1.17	0.280	0.000
Self Esteem (SE)	1.94	0.745	0.054	1.26	0.689	0.070
Depression (PHQ9)	-1.12	1.000	0.264	-1.16	0.670	0.085
Anxiety (GAD7)	-0.39	0.850	0.694	-0.61	0.905	0.501
Social Functioning (WSAS)	-0.93	1.429	0.355	-2.06	1.525	0.179
Quality of Life (EQVAS)	0.86	3.087	0.391	2.70	3.582	0.452
Quality of Life (EQ-5D)	0.27	0.041	0.786	-0.017	0.044	0.705

7. Economic Results

7.1. Data completeness

At 6 months, full service use and psychotropic medication use data for the follow-up period was available for 102 (77%) out of 132 participants in the TAU group, and 110 (85%) out of 129 participants in the ICM group due to losses to follow-up (described in Chapter 6). This was 81% of the total number randomised. IAPT service use and ICM intervention use data was available for 100% of randomised participants as it was taken from patient records rather than participant interviews.

7.2. Service use

7.2.1. ICM and IAPT service use

Mean ICM and IAPT service use data is shown in Table 7.1. Mean total ICM service use during the 6 month follow-up period was approximately 500 minutes (S.D. 350 minutes) for the ICM group, and the range was zero to 1,560 minutes, indicating a high degree of variability between participants. Ninety-two percent of ICM group participants used the ICM service during the follow-up period, and the mean number of contacts was 8.09 (S.D. 5.66).

A slightly lower proportion of participants used the IAPT service in the ICM group (79.9%) than the TAU group (86.4%), however the mean total time for IAPT service use was slightly higher for the ICM group (446 minutes, S.D. 357 minutes), than the TAU group (424 minutes, S.D. 380 minutes), indicating that fewer participants used the service but had slightly more contact. These differences are minimal so it would seem that the ICM intervention had very little impact on the level of IAPT service use by the ICM group.

Table 7.2 gives a more detailed breakdown of the number of contacts participants had with the ICM and IAPT service. Most ICM group participants (67.5%) had between 2 and 12 contacts with the ICM service over the follow-up period, and 19.4% had over 12 contacts. Fewer than five percent (4.7%) had only one contact during the follow-up period, and 8.5% had no contact at all.

A similar pattern is found with IAPT service use, where most participants (59.7% of the ICM group and 59.8% of the TAU group) had between 2 and 12 contacts with the IAPT service over the follow-up period. The proportion of those having more than 12 contacts again was similar (10.9% of the ICM group and 12.9% of the TAU group), however some differences are found in those having only one contact (9.3% ICM, 13.6% TAU), and those having no contacts at all, which was higher in the ICM group (20.2% ICM, 13.6% TAU). Again, these differences are minimal, which supports the suggestion that the ICM intervention had little effect on IAPT service use in the ICM group.

An interesting finding is that the average level of IAPT service use overall (434 minutes) was similar to the average level of ICM service use (500 minutes), and thus the ICM group were receiving approximately double the amount of contact than the TAU group, with IAPT and ICM service use combined (Table 7.1).

Table 7.1 – Mean ICM and IAPT service use between baseline and 6 month follow-up

	ICM Group (n=129)					TAU Group (n=132)				
	No of contacts Mean (SD) Range		Total time in minutes Mean (SD) Range		% using	No of contacts Mean (SD) Range		Total time in minutes Mean (SD) Range		% using
ICM service	8.09 (5.66)	0 - 26	500.28 (360.69)	0 - 1560	91.47	N/A	N/A	N/A	N/A	N/A
IAPT service	5.67 (4.95)	0 - 18	445.74 (356.94)	0 - 1530	79.85	5.90 (5.14)	0 - 24	423.75 (380.41)	0 - 1890	86.36
Total	13.76 (8.80)	0 - 38	946.02 (589.62)	0 - 2530		5.90 (5.14)	0 - 24	423.75 (380.41)	0 - 1890	

Table 7.2 – Number of contacts with ICM and IAPT between baseline and 6 month follow-up

No of contacts	ICM Group (n=129)				TAU Group (n=132)			
	ICM n	%	IAPT n	%	ICM n	%	IAPT n	%
0	11	8.5	26	20.2	N/A	N/A	18	13.6
1	6	4.7	12	9.3	N/A	N/A	18	13.6
2 to 6	38	29.5	40	31.0	N/A	N/A	44	33.3
7 to 12	49	38.0	37	28.7	N/A	N/A	35	26.5
13 to 24	24	18.6	14	10.9	N/A	N/A	17	12.9
25 or more	1	0.8	0	0.0	N/A	N/A	0	0.0

7.2.2. Health and social care service use

Resource use for all health and social care services is shown in Table 7.3. This data is split into two sections: hospital services and community services.

7.2.2.1. Hospital services

A similar proportion of participants in both groups attended outpatient appointments during the follow-up period (ICM 40.0%, TAU 38.2%). The mean number of outpatient appointments was similar for the ICM group (mean 1.24, S.D. 2.44) and the TAU group (mean 1.30, S.D. 2.43), however the range of appointments was slightly larger for the ICM group (0-15) than the TAU group (0-12).

Accident and emergency visits were also similar between groups, with 18.2% of the ICM group and 18.6% of the TAU group visiting at least once during the follow-up period. The mean number of visits was similar across groups (ICM mean 0.19, S.D. 0.42; TAU mean 0.26, S.D. 0.67), and the range was slightly smaller in the ICM group (0-2) compared to the TAU group (0-5).

The proportion of participants having inpatient stays during the follow-up period was similar between the two groups (ICM 7.3%, TAU 7.8%) and the mean number of nights was less than 1 in both groups (ICM mean 0.36, S.D. 1.71; TAU mean 0.28, S.D. 1.12). The range of nights was higher in the ICM group (ICM 0-14, TAU 0-8).

Ambulance use was low in both groups (ICM 2.7%, TAU 2.0%), and the mean number of ambulance uses was similar across the two groups (ICM mean 0.03, S.D. 0.16; TAU mean 0.02, S.D. 0.14; range 0-1 in both).

The similar level of hospital service use across both groups indicates that the ICM intervention did not have an important impact on resource use in this area.

7.2.2.2. Health and social care community services

Over 80% of participants visited their GP during the follow-up period (ICM 88.2%, TAU 86.3%) and the number of appointments was similar in both groups (ICM mean 3.96, S.D. 3.67; TAU mean 4.55, S.D. 4.63). The range was high in both groups (ICM 0-20, TAU 0-26), indicating that some participants visited their GP frequently during the follow-up period. These figures show that the mean number of visits was slightly lower for the ICM group compared to the TAU group, and the total time in minutes was also lower (ICM mean 58.31, S.D. 85.59; TAU mean 69.82, S.D. 107.2), but the large standard deviations indicate that there was a high degree of variability in both groups; the maximum total time spent at GP surgery visits in the ICM group was 10 hours across the follow-up period, and in the TAU group the maximum total time was 12 hours.

Over 30% of participants had phone consultations with their GP over the follow-up period (ICM 30.0%, TAU 31.4%). Although the proportion of participants was similar across both groups, the ICM group had slightly more contacts (mean 0.76, S.D. 2.28, range 0-20) than the TAU group (mean 0.61, S.D. 1.20, range 0-6), and the total time in minutes was also higher (ICM mean 9.02, S.D. 40.44, range 0-300; TAU mean 5.27, S.D. 13.28, range 0-90). Again, the large standard deviations and ranges indicate a high level of variability between participants in both groups.

GP home visits were minimal: none of the ICM group participants had a GP home visit during the follow-up period, and this was less than 1% in the TAU group.

A similar proportion of both groups visited a practice nurse at least once over the follow-up period (ICM 23.6%, TAU group 25.5%). The ICM group had slightly fewer contacts (mean 0.28, S.D. 0.96, range 0-6) than the TAU group (mean 0.62, S.D. 1.76, range 0-12) and a lower total time in minutes (ICM mean 5.05, S.D. 11.19, range 0-60; TAU mean 10.49, S.D. 37.66, range 0-300), but again there was high variability between participants with some having a large amount of contact with a practice nurse and many having no contact at all.

Other health and community services were used by less than 10% of participants in each group, and although there were differences in mean number of contacts and mean total time in minutes between the ICM and TAU groups, they were often due to the high level of variability between individual participants. For instance, less than 3% of participants saw a social worker during the follow-up

period (ICM 2.7%, TAU 1.9%), however the total time in minutes was substantially lower in the ICM group (mean 3.86, S.D. 30.71) compared to the TAU group (mean 22.35, S.D. 155.44), due to the differences in range (ICM 0-300 minutes, TAU 0-1400 minutes); a closer look at the data revealed that one participant had contact with a social worker many times during the follow-up period but this was a rare case.

Overall, the use of health and social care community services was broadly similar across both groups, so it could again be said that the ICM intervention had little effect on the use of health and social care services by the ICM group. However there was one area where there was a noticeable difference between groups, and this was the use of advice centres. The proportion of participants in the ICM group who used advice centres during the follow-up period (10.8%) was approximately half the proportion in the TAU group (20.0%), and the total time in minutes was also approximately half (ICM mean 5.93, S.D. 20.88, range 0-120; TAU mean 11.46, S.D. 30.47, range 0-180). Although the standard deviations and range sizes indicate there was substantial variability between participants in each group, it is possible that the ICM group may have used advice centres less than the TAU group due to the ICM intervention, as career coaches may have provided practical advice for issues such as welfare benefits or employment discrimination (Chapter 3 provides further detail on the intervention), whereas a TAU group participant would not have access to this advice and may therefore need to visit their local advice centre.

Table 7.3 - Health and social care service use between baseline and 6 month follow up

	ICM Group (n=110)					TAU Group (n=102)				
	No of contacts Mean (SD) Range		Total time in minutes Mean (SD) Range		% using	No of contacts Mean (SD) Range		Total time in minutes Mean (SD) Range		% using
Inpatient stays (nights)	0.36 (1.71)	0-14	N/A	N/A	7.27	0.28 (1.12)	0-8	N/A	N/A	7.84
Outpatient appts	1.24 (2.44)	0-15	N/A	N/A	40.00	1.30 (2.43)	0-12	N/A	N/A	38.24
A&E visits	0.19 (0.42)	0-2	N/A	N/A	18.18	0.26 (0.67)	0-5	N/A	N/A	18.63
Ambulance uses	0.03 (0.16)	0-1	N/A	N/A	2.73	0.02 (0.14)	0-1	N/A	N/A	1.96
GP surgery visits	3.96 (3.67)	0-20	58.31 (85.59)	0-600	88.18	4.55 (4.63)	0-26	69.82 (107.20)	0-720	86.27
GP home visits	0.00 (0.00)	0-0	0.00 (0.00)	0-0	0.00	0.01 (0.10)	0-1	0.29 (2.97)	0-30	0.98
GP phone calls	0.76 (2.28)	0-20	9.02 (40.44)	0-300	30.00	0.61 (1.20)	0-6	5.27 (13.28)	0-90	31.37
Practice nurse	0.39 (0.96)	0-6	5.05 (11.18)	0-60	23.64	0.62 (1.76)	0-12	10.49 (37.66)	0-300	25.49
District nurse	0.28 (1.28)	0-10	8.55 (40.08)	0-300	7.27	0.02 (0.14)	0-1	0.39 (3.12)	0-30	1.96
CPN	0.16 (1.16)	0-11	10.91 (95.45)	0-990	2.73	0.27 (1.74)	0-15	15.34 (103.70)	0-900	3.92
Occupational therapy	0.03 (0.16)	0-1	0.91 (6.43)	0-60	2.73	0.09 (0.55)	0-5	2.01 (12.78)	0-120	3.92
Art therapy	0.00 (0.00)	0-0	0.00 (0.00)	0-0	0.00	0.08 (0.61)	0-6	5.29 (37.86)	0-360	2.94
Social work	0.12 (0.97)	0-10	3.86 (30.71)	0-300	2.73	0.33 (2.57)	0-24	22.35 (155.44)	0-1440	1.94

	ICM Group (n=110)					TAU Group (n=102)				
	No of contacts		Total time in minutes			No of contacts		Total time in minutes		
	Mean (SD)	Range	Mean (SD)	Range	% using	Mean (SD)	Range	Mean (SD)	Range	% using
Marriage counselling	0.03 (0.29)	0-3	1.64 (17.16)	0-180	0.91	0.25 (2.48)	0-25	11.03 (111.39)	0-1125	0.98
Advice centre	0.38 (1.00)	0-6	5.93 (20.88)	0-120	10.78	0.16 (0.52)	0-3	11.46 (30.47)	0-180	20.00
Day centre	0.48 (4.77)	0-50	28.64 (286.15)	0-3000	2.73	0.09 (0.58)	0-4	4.9 (36.85)	0-360	2.94
Helpline calls	0.39 (2.88)	0-30	N/A	N/A	8.18	0.32 (1.96)	0-17	N/A	N/A	6.86

7.2.3. Medication

The use of prescribed psychotropic medication was similar across both groups, and although the proportion of ICM group participants using antidepressants (51.8%) was slightly higher than the TAU group (44.1%), approximately half the sample in both groups used some form of medication during the follow-up period, when the three types (antidepressants, anxiety/sleep, and antipsychotics) were combined (ICM 55.5%, TAU 50%). Less than 1% of the sample were prescribed antipsychotic medication, and the use of anxiety / sleep medication was also relatively low. Medication use for both groups is summarised in Table 7.4, and it is evident that the ICM intervention did not reduce medication use by the ICM group during the follow-up period.

Table 7.4 Use of medication between baseline and 6 month follow-up; % of sample prescribed

	ICM Group (n=110) % of participants prescribed	TAU Group (n=102) % of participants prescribed
Antidepressants	51.82	44.12
Anxiety / sleep	3.64	4.90
Antipsychotics	0.00	0.98
Total	55.46	50.00

7.2.4. Employment services

Employment service use data is shown in Table 7.5. Overall, use of employment services was similar across both groups with 53.6% of the ICM group and 59.4% of the TAU group using at least one type of employment service during the follow-up period. However there were some differences in the type of employment services used and the total time spent using employment services.

Less than 15% of each group attended the Work Programme during the follow-up period (ICM 13.6%, TAU 11.8%) which is surprising given that this government programme was aimed at helping unemployed people with health conditions get back to work and is mandatory for many people in receipt of welfare benefits (although low attendance rates could be due to the 'cherry picking and parking' phenomenon, described in Chapter 2).

A lower proportion of ICM group participants attended Jobcentre Plus during the follow-up period (38.2%) compared to the TAU group (52.0%), however a higher proportion attended other employment services in the private or voluntary sector (ICM 20.0%, TAU 15.7%). This difference could in some part be due to the ICM intervention: a career coach might introduce a participant to a voluntary/private sector employment service through their partnerships, which under usual circumstances a participant may not be aware of. As a result, participants that receive support from private or voluntary sector employment services are less likely to need to visit their local jobcentre for advice, which may explain the lower proportion using Jobcentre Plus in the ICM group during the follow-up period.

The total time spent attending employment services differed between the two groups, and it would seem that the ICM intervention may have reduced the length of overall employment service use. The mean total time in minutes for the ICM group was 157.27 (S.D. 424.91), which is considerably lower than the mean total time for the TAU group (mean 213.91, S.D. 606.93). It could be suggested that participants accessing employment services in the ICM group may have required less employment support overall than those in the TAU group, due to the additional support they were receiving from the ICM service.

Table 7.5 Employment service use between baseline and 6 month follow-up

	ICM Group (n=129)					TAU Group (n=132)				
	No of contacts Mean (SD) Range		Total time in minutes Mean (SD) Range		% using	No of contacts Mean (SD) Range		Total time in minutes Mean (SD) Range		% using
Jobcentre Plus	2.54 (4.41)	0 - 24	44.84 (98.73)	0 - 720	38.18	3.88 (5.60)	0 - 26	72.16 (122.53)	0 - 600	51.96
Work Programme	0.97 (3.40)	0 - 24	45.36 (190.98)	0 - 1440	13.64	0.79 (2.69)	0 - 18	33.57 (113.66)	0 - 600	11.76
Other employment service	1.08 (3.40)	0 - 24	68.07 (304.28)	0 - 2520	20.00	1.09 (4.19)	0 - 30	108.19 (573.50)	0 - 5460	15.69
Total employment service use	4.59 (7.59)	0 - 48	157.27 (424.91)	0 - 2970	53.64	5.76 (8.31)	0 - 34	213.91 (606.93)	0 - 5510	59.41

7.3. Costs

Costs were calculated for all resource use categories, including: ICM service use, IAPT service use, all other health service use, including medication, social care service use, and employment service use. Costs were also calculated for productivity losses due to sickness absence, for those who obtained employment during the follow-up period of the study.

7.3.1. Productivity losses

Productivity losses are shown in Table 7.6. Of those in employment (ICM n=37, 33.6%; TAU n=35, 34.3%) over the 6-month follow-up period, the mean number of days absent from work was higher in the ICM group (21.8 days) than the TAU group (15.4 days). The mean daily pay rate was higher for the ICM group (£103.45) than the TAU group (£85.69) due to a much larger range of annual salaries received (ICM £2,500 to £62,500; TAU £2,500 to £37,500).

Table 7.6 Days absent and pay rates for participants in employment between baseline and 6 month follow-up

	ICM Group (n=37)		TAU Group (n=35)	
	Mean (SD)	Range	Mean (SD)	Range
Days absent	21.76 (42.84)	0 - 182	15.40 (38.05)	0 - 130
Annual salary (£)	20,068 (16,567)	2,500 – 62,500	18,824 (10,539)	2,500 – 37,500
Daily pay rate (£)	103.45 (74.30)	5.49 – 312.50	88.21 (50.71)	5.34 – 197.80

7.3.2. Total costs

Total costs over the 6 month follow-up period are summarised in Table 7.7. The costs of IAPT service use, hospital service use, medication, and productivity losses were all higher for the ICM group than the TAU group however the differences were not statistically significant. The costs of community service use and employment service use were lower for the ICM group than the TAU group, however again the differences were not statistically significant. It would therefore appear that the ICM intervention did not reduce costs during the follow-up period. The overall cost for the ICM group (mean £3265.59, S.D. £4020.03) was statistically significantly higher than the overall cost for the TAU group (mean £1976.96, S.D. 2675.01) (adjusted for baseline values) due to the high cost of the ICM intervention ($t = 2.80$, $p = 0.006$).

Table 7.7 - Differences in mean costs (£) between baseline and 6-month follow-up

	ICM Group	TAU Group	ICM Group – TAU Group		
	Mean (SD)	Mean (SD)	Adjusted mean difference	95% CI	Adjusted p-value
ICM service	888.97 (688.93)	0.00 (0.00)	899.27	779.85 to 1018.69	0.000
IAPT service	681.30 (630.56)	657.41 (639.55)	27.8	-115.38 to 170.99	0.702
Hospital services	286.66 (658.71)	225.59 (555.60)	57.53	-104.59 to 219.65	0.485
Community health & social care	274.73 (394.63)	330.41 (433.08)	-31.49	-141.48 to 78.51	0.573
Medication	18.63 (92.90)	13.87 (65.53)	-0.97	-22.28 to 20.35	0.929
Employment services	149.41 (403.67)	203.22 (576.58)	-37.83	-175.31 to 99.65	0.588
Productivity losses	717.52 (3404.21)	392.24 (1974.70)	111.85	-391.99 to 615.68	0.662
Total	3265.59 (4020.03)	1976.96 (2675.01)	1083.98	-319.86 to 1848.10	0.006

7.4. Outcomes

7.4.1. Health related quality of life

Mean health utility scores (EQ-5D-3L) were slightly higher in the ICM group (mean 0.69, S.D. 0.29) than the TAU group (mean 0.66, S.D. 0.27) at the six-month follow-up point, with resultant QALYs also slightly higher for the ICM group (0.33 vs 0.31), however the QALY difference was not statistically significant (Table 7.8).

Table 7.8 - Mean EQ-5D-3L utility score at baseline and 6-month follow-up and resultant QALYs

	ICM Group		TAU Group		ICM Group – TAU Group		
	N	Mean (SD)	n	Mean (SD)	Adjusted mean difference	95% CI	Adjusted p-value
Baseline	129	0.574 (0.306)	132	0.543 (0.319)			
6 months	75	0.694 (0.290)	65	0.656 (0.274)			
QALYs	75	0.332 (0.124)	65	0.306 (0.124)	0.004	-0.018 to 0.025	0.738

7.5. Cost-utility analysis

7.5.1. Incremental cost-effectiveness ratio (ICER)

Table 7.9 shows the ICER calculated for the ICM intervention. The mean difference in cost between the ICM and TAU condition was £1,288.63. Using the area under the curve approach to estimating QALYs, the mean difference in QALYs was 0.02. The ICER of the mean incremental values is £64,431.50 per QALY.

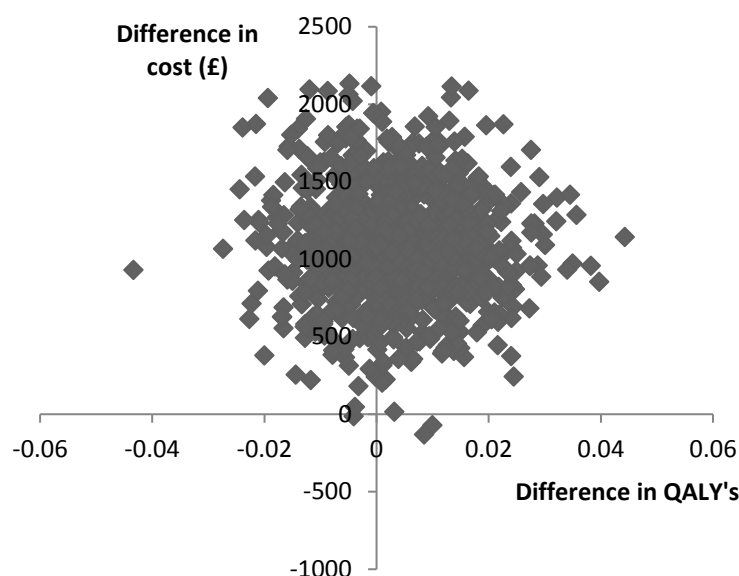
Table 7.9 - Incremental cost-effectiveness ratio (ICER) for ICM intervention

ICM Group		TAU Group		Incremental		
Cost	QALYs	Cost	QALYs	Cost	QALYs	ICER
£3,265.59	0.33	£1,976.96	0.31	£1,288.63	0.02	£64,431.50

7.5.2. Cost-effectiveness plane

The scatterplot of the adjusted bootstrapped cost and effectiveness pairs for the ICM group compared to the TAU group are shown in the cost-effectiveness plane in Figure 7.1. The scatter points illustrate that the ICM intervention is more costly than the TAU condition (almost all the scatter points lie above the x-axis), with only a minor increase in effectiveness (slightly more scatter points to the right of the y-axis).

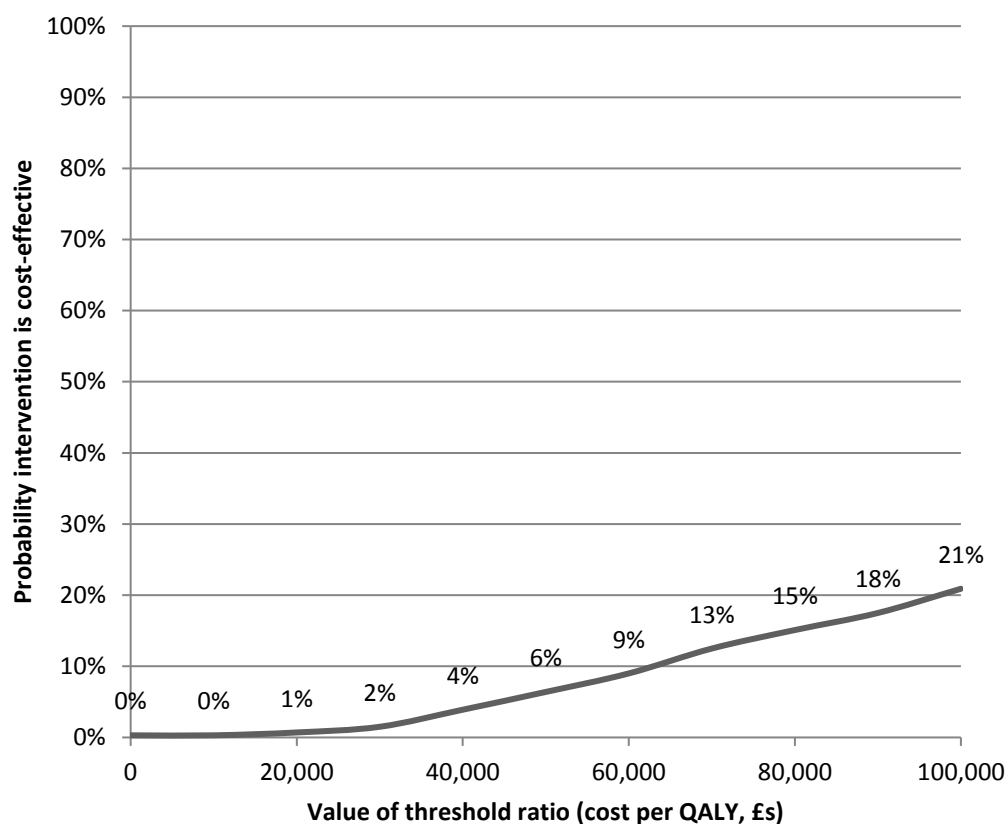
Figure 7.1 Cost-effectiveness plane showing the adjusted bootstrapped mean differences in costs and effects of the intervention compared to control condition



Cost effectiveness acceptability curve (CEAC)

The CEAC in Figure 7.2 illustrates that the probability of the intervention being cost-effective compared to the TAU group was only 0.7% and 1.5% of simulations at the NICE threshold values of £20,000 and £30,000 per QALY, respectively at the 6-month follow-up point. This rises only to 20.9% at a threshold value of £100,000, demonstrating that the intervention is highly unlikely to be cost-effective compared to the TAU group at 6-month follow-up.

Figure 7.2 CEAC showing probability of ICM being cost-effective compared to TAU condition



7.6. Sensitivity analysis

As described in Chapter 5, a societal perspective was appropriate for this study given that the intervention was designed to have an impact on employment outcomes and productivity. However the intervention is fully funded by the NHS, and NICE recommend a National Health Service (NHS) and personal social services (PSS) perspective for the economic evaluation of healthcare interventions. It was therefore decided that a sensitivity analysis from the NHS/PSS perspective would be carried out.

Changing the perspective made the ICM group less costly in total (mean cost £2,548.06) and the difference in mean costs between the ICM and TAU group was smaller (£965.34), resulting in a lower ICER of £48,167.00 as seen in Table 7.10.

Table 7.10 ICERs for ICM intervention using societal and NHS/PSS perspectives

	ICM Group		TAU Group		Incremental		
	Cost	QALYs	Cost	QALYs	Cost	QALYs	ICER
Societal perspective	£3,265.59	0.33	£1,976.96	0.31	£1,288.63	0.02	£64,431.50
NHS/PSS perspective	£2,548.06	0.33	£1,584.72	0.31	£965.34	0.02	£48,167.00

Figure 7.3 shows the CEACs for both perspectives, which shows very little difference between the two. Taking the NHS/PSS perspective, the probability of the ICM group being cost-effective compared to the TAU group at the NICE threshold values of £20,000 and £30,000 per QALY at the 6-month follow-up point was only 0.0% and 0.3%, respectively, even lower than for the societal perspective. However, after a threshold value of approximately £80,000 per QALY, the probability of the intervention being cost-effective from the NHS/PSS perspective overtakes that for the societal perspective, although the differences are small. The curve for the NHS/PSS perspective is also smoother and the scatterplot shows the costs are clustered more tightly together (Figure 7.4), which implies that there is less variability in results using the NHS/PSS perspective compared to the societal perspective.

Regardless of these differences, it is still fair to say that the ICM intervention is highly unlikely to be cost-effective compared to the TAU group from either perspective

Figure 7.3 CEACs for ICM intervention from societal and NHS/PSS perspectives

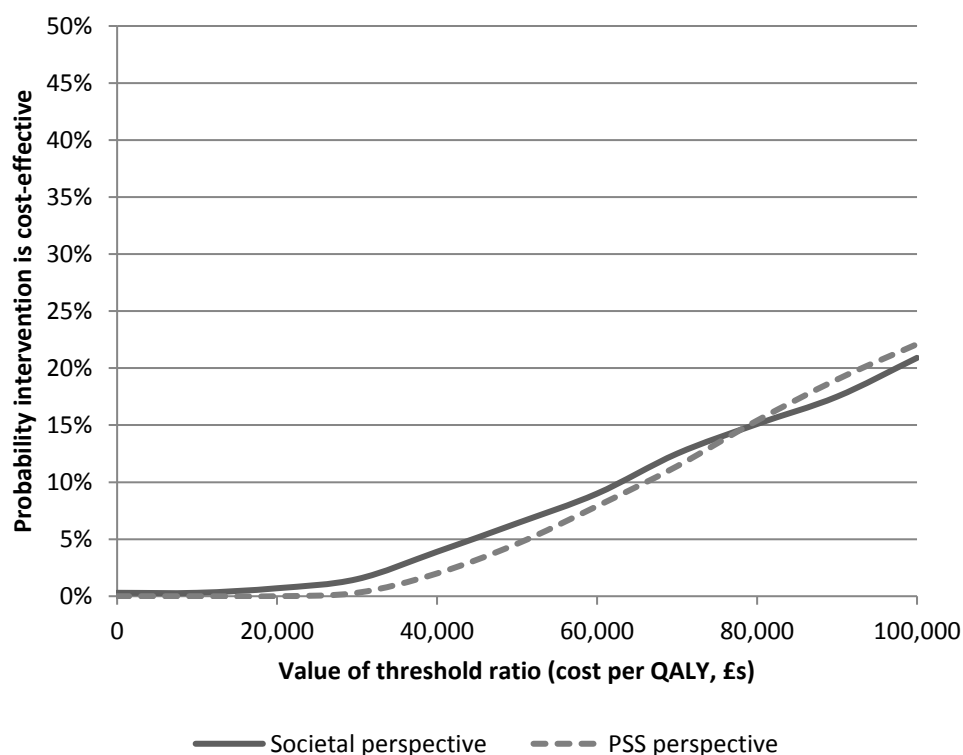
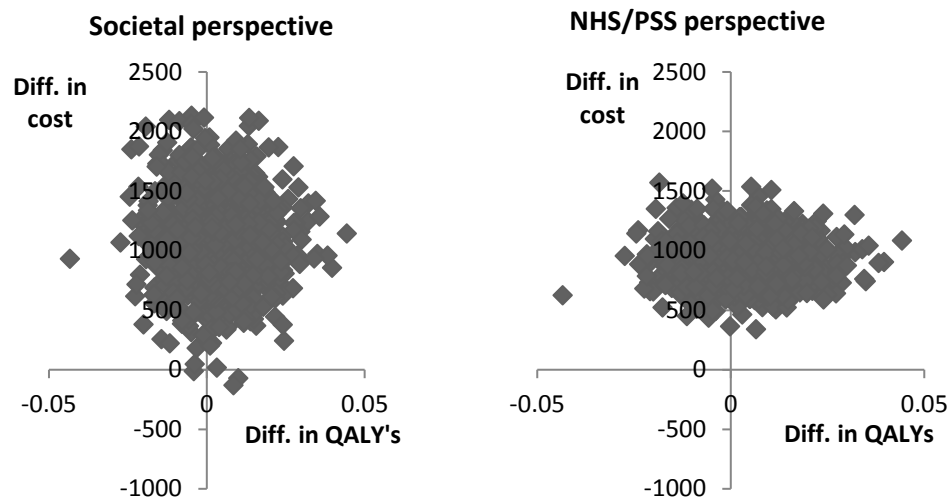


Figure 7.4 Cost-effectiveness plane showing bootstrapped values for societal and NHS/PSS perspectives



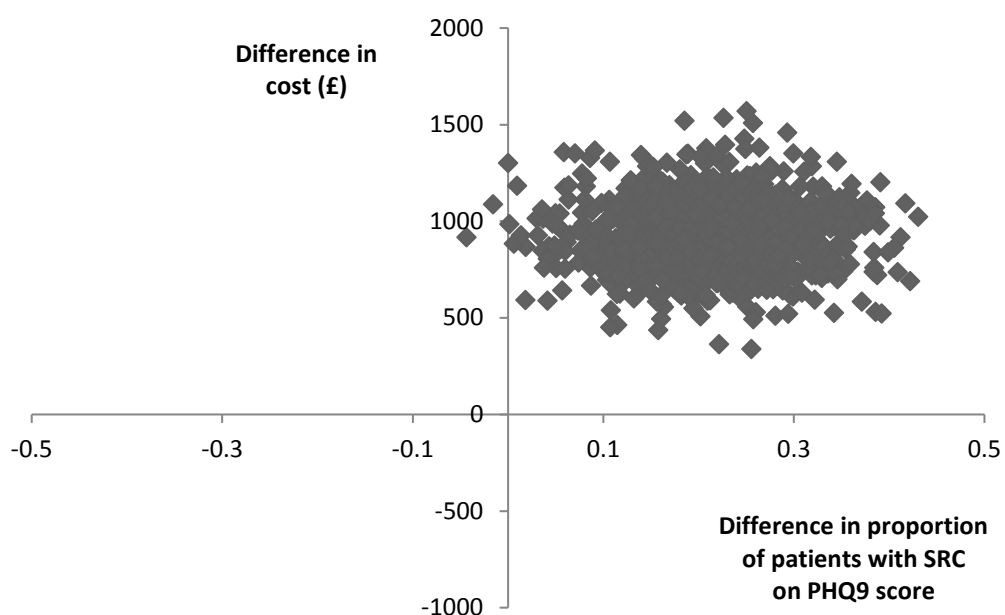
7.7. Secondary analyses

7.7.1. Cost-effectiveness analysis: Depression

Commissioners of IAPT services are likely to be interested in whether the ICM intervention is more cost-effective than the TAU condition in improving recovery rates for people with depression, as this was one of the clinical outcomes where there was a significant difference between groups (see Chapter 6). Therefore a secondary cost-effectiveness analysis was conducted using statistically reliable change (SRC) in PHQ9 score as the outcome measure.

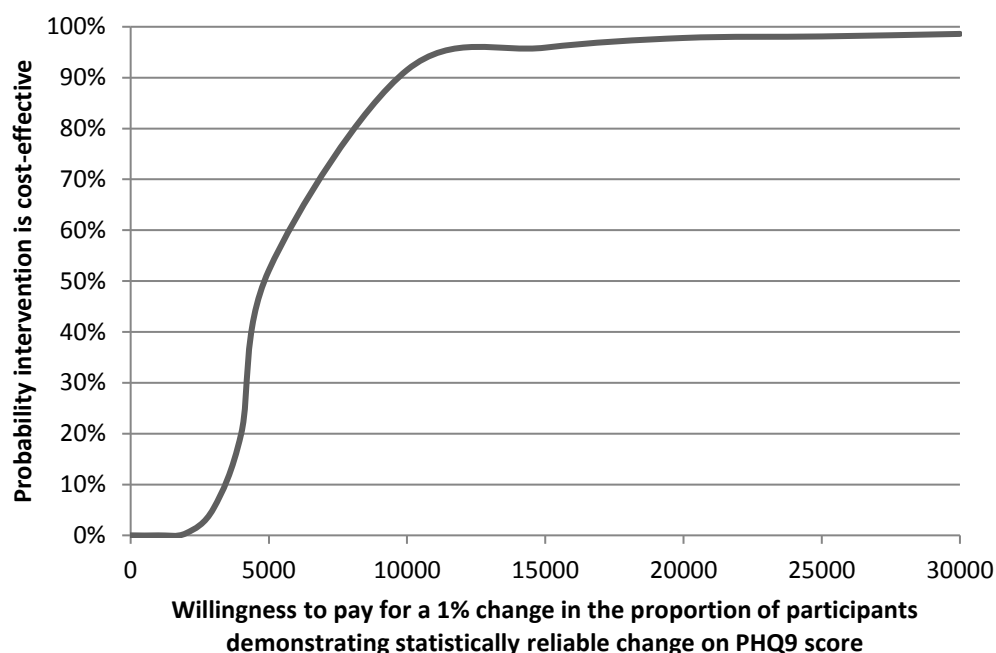
The scatterplot of the bootstrapped cost and effectiveness pairs for the ICM compared to the TAU condition, shown in the cost-effectiveness plane in Figure, illustrates that the ICM group were more expensive than the TAU condition (all scatter points above the x-axis) but outcomes were better than for the TAU condition in terms of reducing levels of depression (almost all scatter points to the right of the y-axis).

Figure 7.5 Cost-effectiveness plane showing the bootstrapped mean differences in costs and effects of ICM compared to TAU for a statistically reliable change in PHQ9 score



No willingness to pay level for statistically reliable change in PHQ9 score exists, and although this outcome measure is suggested in the new IAPT payment by results model (NHS England, 2017), no financial values for this outcome have yet been suggested, so no firm conclusion can be reached. However, the CEAC in Figure 7.6 shows that the probability of ICM being cost-effective compared to TAU is 0% at a zero willingness to pay, rises to 50% at a willingness to pay of around £5000 and rises above 95% at a willingness to pay level of around £15,000.

Figure 7.6 CEAC showing probability of ICM being cost-effective compared to TAU in terms of a statistically reliable change on PHQ9 score.



7.7.2. Cost-offset analysis: Earnings

Cost-offset analysis, or partial cost-benefit analysis, where both costs and easily valued outcomes are valued in monetary terms, is not a common approach in health economics. However, this approach has been taken in several RCT's of IPS to identify whether the monetary benefits of employment, in terms of productivity valued using wage rates, outweigh the costs of the intervention. A recent cost-effectiveness analysis of the EQOLISE trial in Europe (Knapp et al., 2013) included a partial cost-benefit analysis by using the monetary value of days employed minus the total costs of the intervention and other services used; a difference in net benefit of +£17,005 in favour of IPS was found between the ICM and TAU group. A similar approach was therefore taken with the ICM intervention to identify whether the earnings of participants in the CAREER study outweighed the costs of the intervention over the 6-month follow-up.

As seen in the results of the clinical analysis (Chapter 6), the proportion of participants in employment during the follow-up period was similar for both groups and there were no significant differences in the length of employment. It is therefore unsurprising to find that the mean total earnings for the ICM group

during the follow up period (£1,330.11, S.D. £3,302.20) were similar to the mean total earnings for the TAU group (£1,408.71, S.D. £3,054.53), shown in Table 7.11. The mean figure for weeks worked in Table 7.11 is lower than the figure presented in Section 5.5 as absences from work have been deducted, and the mean is based on the whole sample, to include those that were not employed during the follow-up period. Similarly, the mean annual salary given here is lower than the figure reported previously in Section 6.2.5 as it includes those not employed (with a salary of zero).

Table 7.11 - Total earnings due to weeks worked between baseline and 6-month follow-up

	ICM Group (n=110)		TAU Group (n=102)	
	Mean (SD)	Range	Mean (SD)	Range
Weeks worked	3.18 (6.26)	0 - 26	3.59 (6.82)	0 - 26
Annual salary (£)	6,750 (13,467)	0 – 62,500	6,275 (10,762)	0 – 37,500
Total earnings (£)	1,330 (3,302)	0 – 19,231	1,409 (3,055)	0 – 16,587

An NHS/PSS-only perspective for costs was used for the cost-offset analysis to avoid double counting, since productivity in this case was categorised as an outcome, rather than a cost. The net benefit for each group was calculated by subtracting the total costs of health, social care and employment service use from the total earnings during the follow-up period (Table 7.12). In both groups, the costs of service use outweighed the monetary benefits of employment. The difference in net benefit was £1,041.95 in favour of the TAU group, indicating that the ICM intervention was a less efficient use of resources than the TAU condition over the 6-month follow-up.

Table 7.12 - Cost-offset analysis of earnings and service use costs during the 6-month follow-up

	ICM Group (n=102)	TAU Group (n=110)
	Mean	Mean
Benefits (£)	1,330.11	1,408.71
Costs (£)	2,548.07	1,584.72
Net Benefit (£)	-1,217.96	-176.01
Difference (ICM – TAU) (£)	-1,041.95	

7.8. Summary of economic results

The ICM intervention was not found to make a substantial difference to the use of health and social care services or the level of time off work due to illness, and as a result there were no statistically significant differences in total costs between the ICM and TAU group, excluding the use of the ICM intervention itself.

The ICM group were found to have slightly better outcomes in terms of QALYs compared to the TAU group. However, the cost-utility analysis suggests that these gains for the ICM group came at a substantial cost and there was no evidence to suggest that the addition of ICM to TAU is cost-effective due to the high costs of the ICM intervention. The sensitivity analysis from an NHS/PSS-only perspective produced similar results, which tested the robustness of this finding.

The cost-offset analysis generated similar results. When the monetary benefits of earnings were compared to the cost of NHS/PSS services in both the ICM and TAU groups, the benefits were not found to outweigh the costs in either group, and the net benefit was poorer in the ICM than the TAU group. This was primarily due to the low numbers of participants in employment during this time period, and the high costs of ICM.

Interestingly, although the ICM intervention does not appear to be cost-effective over the 6-month follow-up in terms of salary earnings or QALYs gained, the secondary cost-effectiveness analysis for depression outcomes was less clear,

with the probability of the ICM group being cost-effective compared to TAU ranging from 0% to over 95%. Without a societal value for the willingness to pay for a statistically reliable change in PHQ9 score, no firm conclusion can be reached. However, the cost-effectiveness findings may be useful to policy makers due to recovery rates in depression being a key outcome in the new IAPT payment-by-results model (NHS England, 2017).

8. Chapter Eight: Discussion

8.1. Overview of discussion chapter

This chapter presents a brief summary of the aims of thesis, followed by a detailed discussion of the objectives and key findings of the CAREER study. Criticisms and strengths of the CAREER study will then be discussed, and implications for further research, policy and practice will be presented. The chapter ends with a final conclusion to the thesis.

8.2. Aims of the thesis

The overall goal of this thesis was to examine the effectiveness and cost-effectiveness of the ICM intervention. Underpinning this goal were five specific aims:

The first aim was to describe the theoretical framework for the ICM intervention and manualise it in order for it to be delivered in an RCT; this aim was achieved and the theoretical framework can be found in Chapter Three.

The second aim was to undertake a systematic review of the supported employment literature to inform the design of the RCT; this aim was achieved and the results suggest that the evidence base, particularly for economic evaluations of supported employment, is limited. As a result of the identification of existing systematic reviews of the effectiveness of supported employment services, a semi-systematic review of recent IPS studies and a full systematic review of all economic evaluations were undertaken and the results of these reviews informed the design of the RCT, as outlined in Chapter Four.

The third aim was to develop the methodology for the RCT, including an economic evaluation; this aim was achieved and the full methods can be found in Chapter Five.

The fourth aim was to undertake the RCT to evaluate the effectiveness and cost-effectiveness of the ICM intervention for people with common mental illness; this

aim was achieved and the clinical and economic results can be found in Chapter Six and Seven respectively.

The final aim was to analyse the results of the RCT and make recommendations for further development and application of the ICM intervention; this aim is covered here in Chapter Eight.

8.3. Objectives of the CAREER Study

The overall aim of the CAREER study was achieved: the effectiveness and cost-effectiveness of the ICM intervention was tested in a comparison to TAU in an RCT.

This aim was divided into three study objectives, each of which included one or more hypotheses to be tested. A summary of the objectives and the status of their corresponding hypotheses follow:

8.3.1. Objective 1 – Employment Outcomes

Objective 1 was to establish whether ICM was effective in improving employment outcomes at 6-months follow-up for people with common mental illness compared to TAU. There were fourteen hypotheses relating to this objective:

Hypothesis	Null hypothesis rejected / not
Primary Hypothesis: A significantly greater percentage of individuals in the ICM group will be in competitive employment during the follow-up period compared to those in the TAU group.	Null hypothesis <u>not rejected</u> . There was no significant difference in the percentage of participants in competitive employment between groups.

Hypothesis	Null hypothesis rejected / not

Secondary Hypotheses: In comparison to participants in the TAU group, those in the ICM group would:

1. Be more likely to be currently engaged in occupational activity (including employment, education, training or volunteering).	Null hypothesis <u>not rejected</u> . There was no significant difference in the percentage of participants engaged in occupational activity between groups.
2. Be more likely to have engaged in occupational activity during the follow up period	Null hypothesis <u>rejected</u> . A significantly higher proportion of ICM group participants engaged in occupational activity compared to the TAU group.
3. Have a higher level of career search efficacy	Null hypothesis <u>rejected</u> . ICM group participants had a significantly higher level of career search efficacy than the TAU group.
4. Have a higher level of return to work efficacy	Null hypothesis <u>rejected</u> . ICM group participants had a significantly higher level of career search efficacy than the TAU group.

And if they were in employment, they would:

5. Start employment sooner (shorter 'time to employment')	Null hypothesis <u>not rejected</u> . There was no significant difference in the length of 'time to employment' between groups.
6. Be employed for a significantly longer period	Null hypothesis <u>not rejected</u> . There was no significant difference in the length of employment between groups.
7. Have a higher level of occupation (job type)	Null hypothesis <u>not rejected</u> . There was no significant difference in the level of occupation between groups.

Hypothesis	Null hypothesis rejected / not
8. Work a higher number of hours per week	Null hypothesis <u>not rejected</u> . There was no significant difference in the number of hours worked per week between groups.
9. Have a higher annual salary	Null hypothesis <u>not rejected</u> . There was no significant difference in annual salary between groups.
10. Have a lower number of job terminations	Null hypothesis <u>not rejected</u> . There was no significant difference in the number of job terminations between groups.
11. Have a higher level of job satisfaction	Null hypothesis <u>not rejected</u> . There was no significant difference in the level of job satisfaction between groups.
12. Have a lower level of absenteeism (absence from work)	Null hypothesis <u>not rejected</u> . There was no significant difference in the level of absenteeism between groups.
13. Have a lower level of presenteeism (poor productivity at work)	Null hypothesis <u>not rejected</u> . There was no significant difference in the level of presenteeism between groups.

The results of the CAREER study have established that ICM was not effective in improving competitive employment (primary outcome) at 6 months compared to TAU, and for those that worked, it was not effective in improving time to employment, length of employment, level of occupation, salary, number of job terminations, job satisfaction, absenteeism or presenteeism. However, ICM was effective in improving other employment outcomes including career search efficacy, return-to-work self-efficacy, and occupational activity during the follow-up period.

8.3.2. Objective 2 – Health and Quality of Life Outcomes

Objective 2 was to establish whether ICM was effective in improving health and quality of life outcomes at 6-months follow-up for people with common mental illness compared to TAU. There were five hypotheses relating to this objective:

Hypothesis	Null hypothesis rejected / not
Secondary Hypotheses: In comparison to participants in the TAU group, those in the ICM group would:	
1. Have a higher level of social functioning	Null hypothesis <u>not rejected</u> . There was no significant difference in the level of social functioning between groups.
2. Have a higher level of self-esteem	Null hypothesis <u>rejected</u> . ICM group participants had a significantly higher level of self-esteem than the TAU group.
3. Have a higher level of quality of life	Null hypothesis <u>not rejected</u> . There was no significant difference in the level of quality of life between groups.
4. Have a lower level of anxiety	Null hypothesis <u>not rejected</u> . There was no significant difference in the level of anxiety between groups.
5. Have a lower level of depression	Null hypothesis <u>rejected</u> . ICM group participants had a significantly lower level of depression than the TAU group.

The results of the CAREER study have established that ICM was not effective in improving social functioning, quality of life or level of anxiety at 6 months compared to TAU, however it was effective in improving self-esteem and level of depression.

8.3.3. Objective 3 – Cost-effectiveness

Objective 3 was to establish whether ICM was cost-effective at 6-months follow-up compared to TAU. There was one hypothesis relating to this objective:

Hypothesis	Null hypothesis rejected / not
At the end of the follow-up period, the ICM intervention would be cost-effective compared to TAU, as a result of better quality of life and reductions in productivity losses.	Null hypothesis <u>not rejected</u> . The ICM intervention was not more cost-effective than TAU at the end of the follow-up period.

8.4. Summary & discussion of key findings

8.4.1. Participant characteristics

The majority of participants were female (62%) and the average age was 40. The largest ethnic group was White British (43%) and 24% were Black/Black British. The average length of unemployment was 3 years, and 72% of the participants were in receipt of benefits. Thirty-one percent of participants had worked within the last six months and their average gross annual salary had been £23,906. Forty-two percent of participants had a degree-level qualification or higher.

Recent audit data from the National Audit of Psychological Therapies (NAPT) (Pybis et al., 2017), which included 33,243 patients across 103 IAPT services revealed that the average age of IAPT patients receiving CBT or counselling is 41 years, and 66% are female. It can therefore be said that the CAREER study sample was fairly representative of the UK IAPT population in terms of age and gender. However, the ethnicity of participants was very different: 84% of

participants in the Pybis et al (2017) study were White British, compared to 43% in the CAREER study. This is likely to be due to the location of the current study in London, which has a higher proportion of non-White British residents (45%) than the nationwide picture (19%) (Office for National Statistics, 2012).

Average length of unemployment and educational qualification level has not been reported in any previous studies of IAPT services, most likely because this data is not routinely collected as part of the IAPT minimum data set (National IAPT Programme Team, 2011). It is therefore not possible to know whether CAREER study participants were representative of IAPT patients across the UK in terms of their employability.

Compared to a recent trial of IPS in the UK for people with severe mental illness (Burns et al, 2015), participants in the CAREER study had a higher level of education: 66% of CAREER study participants had a qualification at A-level or above, whereas 40% of participants in the Burns et al (2015) study had entered tertiary education (the proportion gaining qualifications at this level is likely to be lower than 40% due to potential non-course-completers). However, CAREER study participants also had a longer length of unemployment: average 36 months, compared to 24 months in the Burns et al (2015) study. This presents a complex comparison in terms of employability: CAREER study participants were more educated but had a poorer recent work history. As mentioned in Chapter Two, higher average qualification levels may be found in people with common mental illness than severe mental illness due to the latter typically having an earlier onset in life which can disrupt education, but the long length of unemployment experienced by CAREER study participants indicates that people with common mental illness may have just as much difficulty returning to employment as those with severe mental illness, if not more. It is also possible that people with a higher level of qualification may place their own restrictions on the type of work they are willing to do (i.e. someone with a degree may not be willing to do work that is below degree level, whereas someone without a degree may be willing to do any entry-level job), thus limiting their chances for employment if there is high competition for qualified positions in their field.

8.4.2. Outcomes

8.4.2.1. Competitive employment

The proportion of participants working in competitive employment during the follow-up period was equal (34%) in both groups. This level was higher than predicted as estimates from previous data suggested that the competitive employment rate would be 16% in the ICM group and 2% in the TAU group (see Chapter 5). So, whilst these results show that the ICM intervention did not have a differential effect on the primary outcome of competitive employment at six months compared to TAU, both groups demonstrated levels of competitive employment that were far higher than expected.

Those that had worked in competitive employment during the 6 months prior to entering the study were significantly more likely to be in competitive employment during follow-up, as were those with a shorter length of unemployment at baseline. Of those that worked, ICM group participants earned slightly more than the TAU group (mean annual salary = £20,068 and £18,824 respectively) however this difference was not significant.

Compared to a recent cost-effectiveness evaluation of an IAPT service (Mukuria et al, 2013), which found an employment rate of 10% at the end of IAPT treatment, these results indicate that both the ICM intervention and TAU intervention in the CAREER study may produce higher rates of employment than standard IAPT services, where the main difference between standard IAPT services and IAPT provided in the current study is the availability of employment support. However, a firm comparison cannot be made for several reasons. Firstly, the two studies took place at different times –the CAREER study took place between 2012 and 2014 whereas the Mukuria et al 2013 study took place between 2007 and 2009, when the economy was in recession – and hence employment rates in general may have been different. Secondly, the location of the studies was different, with the CAREER study taking place in South London and the Mukuria et al 2013 study being based in Doncaster, a town in Northern England with differences in sociodemographic factors and local labour markets compared to South London. Thirdly, the measurement of employment rates was taken at the end of 6 months in the CAREER study and at the end of treatment in

the Mukuria et al 2013, which may be sooner than 6 months or later than 6 months, depending on the individual and the treatment received.

Recent studies of IPS have revealed that a competitive employment rate of 34% (Schneider et al, 2016) and 43% (Burns et al 2015) can be achieved in the UK, however the follow-up periods for these studies were 12 months and 18 months respectively, so again it is difficult to compare with the results achieved at the 6-month follow-up period in the CAREER study. A more comparable study with data collected at 6-months (Craig et al, 2014) showed that IPS produced a competitive employment rate of 12% for standard IPS and a competitive employment rate of 33% for enhanced IPS within this period. However the participants in all three of these studies had severe mental illness, unlike the CAREER study for people with common mental illness, so again no direct comparisons can be made.

A non-controlled evaluation of employment support in IAPT for people off sick from work (Hogarth et al, 2013) revealed that 72% returned to work at the end of the employment intervention, however the length of the intervention was unclear. In addition, the sample was also very different, with 100% of participants having worked in the last 6 months compared to only 31% in the CAREER study, and the average length of absence from work being 11-15 weeks compared to 3 years in the CAREER study. Whilst the age (average 40-49) and gender (60% female) in the Hogarth et al (2013) study were similar to the CAREER study (average age 40, female 62%), the ethnicity of participants was markedly different – 93% were White, compared to 58% in the CAREER study.

In conclusion, the competitive employment rate at 6 months in the CAREER study was higher than expected for both TAU and the ICM intervention, however the ICM intervention was no more effective than TAU. No closely comparable studies exist to place these results in context, but the rates achieved in the current study do fall within the range of previous estimates available (10% to 43%).

8.4.2.2. Employability

Whilst the ICM intervention did not appear to have a differential effect on competitive employment outcomes compared to TAU, there were clear

differences on other employment related outcomes. If occupational activity is defined as any form of employment, training or voluntary work, significantly more participants in the ICM group (76%) undertook occupational activity during the follow-up period than the TAU group (62%). Whilst employers look for people with recent paid work history, a candidate with recent training or voluntary work experience is likely to be seen more positively than a candidate with no recent occupational activity of any kind (Bills, 1990), and so recent occupational activity may increase the 'employability' of a person looking for work.

Training and voluntary work outcomes have rarely been reported in previous studies of IPS as the primary focus has generally been on competitive employment. However more recent studies have included these secondary outcomes due to their importance in improving mental health (Rinaldi et al, 2010). In a recent evaluation of an enhanced IPS intervention, Craig et al (2014) reported that 30% and 41% of participants entered 'any occupation' (including competitive employment and voluntary work), and 28% and 14% returned to formal education in the IPS group and the enhanced IPS group respectively. Schneider et al (2016) reported that 16% of participants started voluntary work and 12% entered education/training, however it is not known whether these outcomes were mutually exclusive to each other, or to those that entered competitive employment, so the overall rate of occupational activity is not known. Again, direct comparisons with these studies are difficult due to the differences in client group, and differences in the way these outcomes were measured in the different studies.

Employability is not only determined by level of occupational activity, it includes other personal factors such as self-efficacy and self-esteem (Fugate et al, 2004). Levels of career search self-efficacy, return-to-work self-efficacy and self-esteem were significantly higher for participants receiving the ICM intervention than those receiving TAU in the CAREER study, indicating that ICM had a positive effect on these outcomes. To date, no known studies of IPS have measured self-efficacy, however several have measured self-esteem using the same instrument as the CAREER study (Rosenberg, 1965). None the studies identified in the above literature reviews (Chapter 4) found a significant difference in self-esteem for participants receiving IPS compared to control conditions (Blankertz & Robinson, 1996; Drake et al, 1996; Drake et al, 1999; Howard et al, 2016), so this finding in the CAREER study is an important addition to the literature.

8.4.2.3. Anxiety and depression

Levels of anxiety and depression were lower for the ICM group than the TAU group in the CAREER study at 6 month follow-up although the difference was not statistically significant. In terms of participants achieving 'recovery' (measured as a statistically reliable reduction in PHQ9 or GAD7 score for those above the level of 'caseness' at baseline), more participants recovered in the ICM group than the TAU group. This difference was not statistically significant for anxiety however it was for depression, where 45% of the ICM group achieved recovery compared to 25% of the TAU group.

Although the national target for IAPT services is to achieve a 50% recovery rate for anxiety and depression (Department of Health, 2015), most services on average achieve a slightly lower rate than this. Pyabi et al (2017) reported that 47% of patients receiving CBT and 44% of patients receiving counselling achieved recovery for depression, based on a sample of over 26,000 patients. This may imply that the 25% recovery rate achieved for the TAU group in the CAREER study is substantially lower than the national average, however there could be alternative explanations for this. Firstly, the measurement of recovery in the CAREER study was the difference in scores between baseline and 6-month follow-up, whereas in the Pyabi et al (2017) study, the difference was between treatment entry and treatment completion dates; many of the CAREER study participants had not completed their treatment at 6 months which may explain why their recovery rates appear lower. Alternatively, recovery rates may have been lower than average in the CAREER study due to the area having a high level of deprivation (Office for National Statistics, 2014); Delgadillo et al (2016) found a statistically significant association between socioeconomic deprivation and recovery rates in IAPT services.

8.4.2.4. Social functioning and health related quality of life (HRQoL)

Levels of social functioning and HRQoL were slightly better in the ICM group compared to the TAU group however the difference was not statistically significant. Being in employment can significantly improve HRQoL for people with mental illness (Bouwman et al 2015), and as the same proportion of CAREER study participants in both groups did not enter employment during the

follow-up period, this could be a valid explanation for the similar level of HRQoL between the two groups.

The instrument used to measure HRQoL in the CAREER study was the EQ-5D, as recommended by NICE. However, it has been questioned in terms of its sensitivity to mental health states (Mihalopoulos et al 2014) and one recommendation for future research is to map mental health condition-specific measures such as the PHQ9 onto the EQ-5D (Brazier 2010). The simplicity of the EQ-5D (which asks respondents only one question about their mental health) has been criticised in mental health populations (Brazier, 2010; Saarni et al 2010; Chisholm et al 1997) and may not have been sensitive enough to detect the differences in mental health state identified by the PHQ9 in the CAREER study. However, recent evidence disputes this claim, supporting the validity of the EQ-5D in populations with common mental disorders, such as anxiety and depression, although not in more severe mental disorders, such as schizophrenia (Mulhern et al, 2014).

8.4.3. Costs

Service costs and the cost of productivity losses were similar between the ICM group and TAU group, and average costs in the CAREER study were slightly higher than average costs reported in a recent economic evaluation of IAPT which had a follow-up of 8 months (Mukuria et al, 2013). Excluding intervention costs and productivity losses, the total average cost for NHS and personal social services (PSS) was £1,411 for the ICM group and £1,431 for the TAU group in the CAREER study, compared to £1,190 in the Mukuria et al (2013) study. The only notable difference in measurement of resource use is that the CAREER study included employment service costs, which if removed from the total, reduce the ICM group costs by £149 to £1,262 and the TAU group costs by £203 to £1,228, both of which are still higher than the Mukuria et al (2013) costs. However, the unit costs in the CAREER study were taken from 2014 data (PSSRU, 2014), compared to 2009 data in the Mukuria et al (2013) study (PSSRU, 2009), which could partly explain the increase.

The mean cost of productivity losses were similar in the CAREER study (£718 in ICM group, £392 in TAU group, £555 mean cost) and the Mukuria et al (2013) study (£669), however it is important to note that a direct comparison is difficult

for two reasons. Firstly, the number of sickness absence days are likely to be lower in the CAREER study due to the shorter follow-up period, and secondly, there was a difference in the way productivity costs were valued: CAREER study productivity losses were valued based on a daily rate calculated from the average salary for those that worked within the treatment group, whereas the Mukuria et al (2013) costs were based on a national average salary (the CAREER study was located in London where salaries are generally higher than the national average).

The average cost of the ICM intervention was £889 per participant over the 6-month follow up period. The average cost of IPS in a recent study (Schneider et al, 2016) was £755 over a 3-month period, and whilst the costs for 6-months are unknown, they are likely to be much higher considering that IPS is an intervention that lasts on average around 9 months (Burns et al, 2015). Although the ICM costs may appear lower than IPS in this example, the difference in client groups (common mental illness vs. severe mental illness) make a direct comparison problematic.

8.4.4. Cost-Effectiveness

The cost-utility analysis suggests that the ICM intervention was not cost-effective in terms of improved quality of life or reduction in productivity losses. Costs were significantly higher in the ICM group compared to the TAU group due to the higher cost of the ICM intervention, and the fact that the intervention did not reduce the use of other services. Although a slight improvement in QALYs was found in the ICM group, the difference was not significant.

A secondary cost-effectiveness analysis using recovery in depression (statistically reliable change in PHQ9 score) as an outcome indicated that there is around a 90% probability of the ICM intervention being cost-effective if commissioners are willing to pay £10,000 per 1% change in proportion of patients achieving recovery, however as the willingness to pay (WTP) level is unknown for improvement in depression, it is not possible to conclude whether the ICM intervention is cost-effective.

Mukuria et al (2013) calculated that the probability of IAPT being cost-effective was below 50% at a WTP level of £30,000 per statistically reliable change in PHQ9 score. Compared to this study, ICM appears to perform better, albeit

acknowledging the difficulties involved in comparing the two studies. This finding from the CAREER study may be of interest to commissioners of IAPT services as there is likely to be more clarity about WTP levels for improvements in depression in the future.

The cost-offset analysis in the CAREER study revealed that the costs of service use outweighed the monetary benefits generated from participants who achieved competitive employment, and that the ICM condition had a less favourable cost-benefit ratio (net benefit -£1,217.96) than the TAU condition (net benefit -£176.01). The cost-benefit ratios for both conditions at 6 months appear to be substantially more favourable than those found in the EQOLISE study at 18 months, where the net benefit was -£9,440 for IPS and -£25,151 for the control condition (Knapp et al, 2013). Again, direct comparisons are difficult due to the difference in follow-up period and client group, however this study provides some indication that the negative net benefit for ICM may be small in comparison to other supported employment interventions.

8.4.5. Conclusions

Overall, the main conclusion that can be drawn from the results of the CAREER study is that the ICM intervention does not improve competitive employment outcomes at 6-months, and is not cost-effective at 6-months, compared to TAU.

Participants in the ICM group had better outcomes than those in the TAU group on a number of secondary outcomes – including employability, anxiety, depression, social functioning, and health related quality of life. Statistically significant differences in the outcomes of occupational activity, career search self-efficacy, return-to-work self-efficacy, and self-esteem indicate that people receiving ICM may have a higher level of employability at 6 months than those receiving TAU, and whilst employability cannot predict future employment rates (for instance, at 12 months), it potentially improves the likelihood of participants being more successful in their job applications in the future compared to those with lower levels of employability.

The participants in this study were similar to those reported in a national audit of IAPT services (Pyabi et al 2017) in terms of age and gender, however there were

noteworthy differences in ethnicity, with a much smaller proportion of White British participants compared to the national average. This indicates that the results of the CAREER study may be fairly representative of other IAPT services with a high population of people from ethnic minority backgrounds (for instance, in London), but may not be representative of IAPT services across the rest of the UK.

Although the results of some other recent studies of IAPT and IPS have been presented in this chapter for context, direct comparison between the results of the CAREER study and these studies are difficult as they all differ in terms of follow-up period, client group, geographical location and time undertaken.

8.5. Strengths and limitations

8.5.1. Strengths

The key strength of this thesis is its originality: the ICM intervention has never been evaluated before, and the intervention itself is a novel enhancement of IPS. Research into employment interventions for people with common mental illness is in its infancy: to date, the CAREER study is the only RCT of supported employment for people with common mental illness in the UK. Although a recent evaluation of employment support in IAPT was carried out (Hogarth et al, 2013), it was an uncontrolled study with no comparison group so the analysis of employment outcomes in the study was inconclusive. The results of the CAREER study have higher validity as ICM was compared to a suitable control condition (treatment as usual). Being the first of its kind makes the CAREER study the start of a new empirical evidence base about 'what works' in terms of employment support for people with common mental health problems such as depression or anxiety.

The results of the CAREER study also add to the increasing academic literature on 'enhanced' or 'augmented' models of IPS (Kinoshita et al, 2013), which are designed to increase effectiveness and improve job tenure. Recent studies have found that enhancements such as skills training and cognitive rehabilitation may improve IPS outcomes (Boycott et al, 2012), and work-related CBT may also have an impact on effectiveness (Boycott et al, 2016). To date, most studies of

enhanced IPS have been conducted with people with severe mental illness such as schizophrenia, however a new model of enhanced IPS for people with depression, called Individual Enabling and Support (IES) has been developed in Sweden (Bejerholm et al 2017) and a small-scale trial has shown that it is effective in improving employment outcomes compared to traditional vocational rehabilitation.

As highlighted in the systematic review, very few previous studies of IPS have included an economic evaluation, and those available were not of particularly high quality, so an important strength of the CAREER study is that it collected a broad range of economic data that can be useful for decision makers and conducted a full economic evaluation from a societal perspective as well as a NHS/PSS perspective. Interestingly, some high quality economic studies of IPS have been published since the systematic review was undertaken (Heslin et al, 2011, Schneider et al, 2016), so it is pleasing to see that evidence is increasing in this area.

The methodological issues experienced in the CAREER study also add to the evidence base about conducting high quality RCT's with this client group. For example, the high attrition rate in this study could inform future researchers about the recruitment targets that may need to be set for a similar study, and the difficulties found with a short-length of follow-up, discussed further below, could suggest that any future studies in this area should have a follow-up period of at least twelve months rather than six. Whilst these issues may have been limitations in this study, they may help to improve the scientific quality of studies in the future.

Despite being an unfunded study, the CAREER Study achieved a large sample size which was an important strength as it meant that there was sufficient power for analysis of the primary outcome, and despite losses to follow-up, the sample size for secondary outcomes was large enough to allow some further conclusions to be drawn about the potential effect of the ICM intervention (although these are less certain than the conclusions about the primary outcome and economic data, which had lower losses to follow up). The recruitment rate was almost certainly helped by the fact that the principal investigator was known by the IAPT service and could easily attend regular team meetings to promote the study, which is one of the benefits of conducting this pragmatic RCT.

The sample was also relatively diverse in terms of participant characteristics, with a high proportion of participants from ethnic minority backgrounds which has rarely been found in IPS studies (other than Howard et al 2010, also conducted in South London). The average age and gender of participants was similar to that found in other IAPT evaluations, which increases the generalisability of the results to other IAPT services. The fact that the CAREER study was based in a fully operational service where the intervention had been well established meant that there were no 'start-up' effects which are sometimes found in less pragmatic RCT's. The career coaches were also fully trained and experienced in delivering the ICM intervention, which increased the likelihood of the intervention being delivered correctly.

A final strength of the study was that the methods were robust and designed to minimise bias, which was especially important as the principal investigator was also the manager of the service in which the study was taking place. Key steps were taken to reduce the risk of bias, such as the randomisation being carried out by the Kings Clinical Trials Unit, data being collected by research assistants not otherwise involved in the study, and the principal investigator (carrying out the analysis) was completely blind to group allocation until after all data had been collected and entered onto the statistical software. As a consequence of these key steps, data integrity was maximised.

8.5.2. Limitations

The main limitation of this study was the short length of follow-up. At 6 months it was clear that both groups had achieved a good rate of competitive employment with 1/3 of participants having worked during this time, however it is impossible to know if this rate would be sustained at 12 months or whether the groups would begin to diverge over a longer time period. The positive effect of the ICM intervention on several of the secondary outcomes at 6 months indicates that there may be potential for the ICM group to do better over the longer-term than the TAU group. Studies with longer follow-up periods provide a clearer indication of the effectiveness of an intervention; for instance no significant difference was found between IPS and TAU at 12 months in the SWAN study (Howard et al, 2010), but the difference was significant at 24 months (Heslin et al, 2011).

Unfortunately as the CAREER study was an unfunded study bound by the time limits of the author's PhD, it was not possible to extend the follow-up period.

The 6-month follow-up period may have also been too short to identify any noticeable changes in health service resource use. Although the health and social care costs were broadly similar at 6 months, there were some subtle differences in the use of employment services and advice services (see Section 7.2.2.2 which may have become more noticeable over the longer term. Similarly, the 6-month period may have been too short to identify important differences in productivity losses as only 1/3 of the sample were in employment at that time. Over a longer follow-up, a higher proportion of participants may have gained employment and thus differences in productivity losses may become more visible.

An intriguing finding is that although the ICM intervention appeared to improve recovery rates in depression, it did not reduce the level of contact participants in the ICM group had with the IAPT service during the follow-up period. One might assume that if a participant has moved into 'recovery' they would perhaps be discharged from the IAPT service. However due to the length of some high intensity treatments being 12-20 sessions (Gayani et al, 2013) and some patients experiencing long waiting lists until the start of treatment (HSCIC, 2015), it is likely that many of these participants were still undertaking their course of treatment at 6 months and were not likely to be discharged from the IAPT service until after the 6-month follow-up period. With a 12 month follow-up period, it would be interesting to see if there are any differences in re-referral after discharge i.e. would the ICM group be less likely to start another course of IAPT treatment due to their reduced level of depression, and therefore be less costly than the TAU group over 12 months due to reduced contact with the IAPT service between 6 and 12 months?

Another key limitation to this study was the high level of losses to follow-up which impacted on the completeness of secondary outcome measures. Although some broad conclusions can be drawn about the effect of ICM on these outcomes, the results must be interpreted with caution as only 50% of the data was available. The baseline outcomes of those missing indicated that they were more anxious, depressed and longer term unemployed than those who attended their follow-up, however we cannot predict if their outcomes would have improved, worsened or stayed the same over time. The attrition rate in the CAREER study was evidently

worse than the attrition rate found in previous IPS studies, which the recruitment target was based on, however this could partly be explained by the difference in client group: IAPT treatment is much shorter than usual treatment in secondary care mental health services, so the participants may no longer be in contact with their therapist at follow-up and therefore more difficult to track. Many of the CAREER study participants were unable to attend their follow-up appointment because they had other commitments impacting on their time, including hospital appointments, meetings with other services (such as housing or benefits advice) and caring responsibilities; several participants were limited in the times they could attend appointments due to taking their children to and from school, or accompanying their partner to healthcare appointments. This highlights another way in which the IAPT client group may differ to those in secondary care: they are less socially isolated. As the CAREER study was unfunded, it was not possible to have research assistants available every day, and so if a participant missed their follow-up appointment and it was not possible to re-book within the 28 day cut off period, they were lost to follow-up. It was also not possible to conduct home visits as this would have required extra resources. A fully funded study in the future may be able to reduce these limitations by having research assistants available to conduct follow-up interviews at a time and location that suits the participant, and also perhaps giving payment to participants for their time, as an incentive to attend.

The substantially higher rate of competitive employment that was achieved for the TAU group (34%) compared to the pre-study estimate (2%) indicates that the difference between ICM and TAU may have been overestimated due to lack of comparable data from previous studies. However, no other data had been available at the time the sample sizes were calculated. With hindsight, a feasibility study may have been of value to generate an accurate sample size calculation. However, this had been considered and extensively discussed at the set-up stage of the CAREER study and, along with the time and resource constraints facing the trial, it was felt that there was enough evidence already available from evaluations of similar interventions in similar populations to support a full RCT.

An issue throughout this thesis was that the author had personally developed the intervention being tested, and the interpretation of the findings could potentially be influenced by their experience or personal investment in the intervention. It was necessary for the author to develop objectivity, and this was achieved with

the help of the authors' supervisors, however it is likely that some subjectivity still remains in the conclusions of the thesis, as is to be expected when the investigator has so much knowledge of the intervention.

Whilst this issue could be seen as a criticism of the thesis, it is also a strength, as it has enabled the author to develop their skills in scientific enquiry, learning to work within the boundaries of the role of a principal investigator, and being acutely aware of the risk of bias at all time throughout the study. If anything, the desire to achieve objectivity, and reduce subsequent criticism, may have increased the quality of the study undertaken. Likewise, the interpretation of the results may have been more valuable due to the first-hand experience the author has from working with this client group.

8.6. Implications for further research

A number of methodological limitations with the CAREER study were highlighted above, including the short follow-up and the large losses to follow-up. Both of these limitations were heavily influenced by the time and resource constraints facing the CAREER study and thus a fully funded RCT would go some way to removing these limitations in a future study. With evidence to suggest that employability, occupational activity, career search self-efficacy, self-esteem, level of depression, social functioning and HRQoL were all significantly higher in the ICM group, it could be hypothesised that with a longer period over which to assess return to competitive employment, ICM would have performed better than TAU in terms of competitive employment over the longer-term. In addition, research assistant resources to support the follow-up and chasing of non-responders would be likely to reduce losses to follow-up. Such a study would enable conclusions to be drawn about the longer term impact of the ICM intervention in a larger sample. Although ICM was developed as an enhanced IPS intervention in response to the suspected limitations of standard IPS with this client group, it has never been compared to standard IPS in an experimental setting. If future studies with longer follow-ups were to find a differential effect for ICM compared to TAU, there may be some value to exploring enhanced IPS (ICM) compared to standard IPS.

This is related to a further suggestion for future research – to explore whether the ICM intervention could be modified to reduce the cost of the intervention and thus

increase the chances of it becoming cost-effective. In addition to standard IPS, which in itself may be less expensive than ICM, a recent adaptation to the IPS model is IPS-Lite, in which employment support is limited to 9 months (as opposed to unlimited support in the standard IPS model) (Burns et al, 2015). Researchers found that IPS-Lite produced similar levels of employment to standard IPS, and the costs of the intervention were likely to be lower, suggesting that IPS-Lite may be a more cost-effective use of resources than IPS. A similar approach could be taken with the ICM intervention, which provides participants with a high level of contact with their career coach, in some cases up to 26 sessions. If this level of contact could be limited to, say, a maximum of 12 contacts, the costs are likely to be reduced and it would be useful to see if this shorter intervention has similar or worse results in terms of employment outcomes.

Further exploration could also be undertaken into the clinical effectiveness of the ICM intervention. In the CAREER study it would seem that there was an impact on depression outcomes, however the study may not have been sufficiently powered to detect significant differences in PHQ9 score due to the small sample size resulting from losses to follow-up (only 140 participants completed the PHQ9 measure). A study that measures a reduction in depression or anxiety as a primary outcome, with an appropriately powered sample size could therefore be useful. This raises the question of whether competitive employment was the right primary outcome measure, particularly given the limitations of the short follow-up. The majority of previous studies evaluating supported employment interventions focused on employment-related outcomes and, since getting people with common mental disorders back to work is a key policy objective, the selection of employment as the primary outcome measure seemed appropriate at the time the study was designed. Future studies should consider the experiences of the CAREER study and consider whether measures of depression may be a more appropriate primary measure.

It may also be helpful to explore the impact of ICM when it is not delivered alongside IAPT treatment. For instance, if ICM was offered to IAPT waiting list patients in a controlled study (with the control group receiving TAU i.e. 'watchful waiting'), it would be possible to see if ICM has any effect on depression/anxiety when no IAPT treatment is being received. A follow-up after IAPT treatment would indicate whether those receiving ICM whilst on the waiting list were closer

to 'recovery' and had better clinical outcomes at the end of their IAPT treatment, than those who started ICM after commencement of their treatment.

As the national IAPT programme is now being expanded for other client groups such as those with long-term health conditions and medically unexplained symptoms (NHS England, 2017), there is the potential to adapt the ICM intervention for other populations and run further controlled studies to see if the effectiveness of ICM differs depending on the client group. An advantage of the ICM intervention is that it is tailored to the individual, rather than the diagnosis, and so adaptation for other populations would be relatively straightforward. Likewise, a study including people with severe mental illness would indicate whether ICM is effective for a broader range of mental health conditions.

Although the CAREER study collected high quality quantitative clinical and economic data, there was no qualitative component to the study. Qualitative data can be useful in a controlled study by exploring processes and identifying problems otherwise undetected by quantitative measures (Schultz et al, 2010). For instance, a qualitative research study that involved interviews with ICM and non-ICM service users, as well as staff (career coaches and IAPT therapists) might be useful in identifying the reasons why the competitive employment outcomes in the CAREER study were no higher than TAU and what adjustments to the intervention could be made to improve its effectiveness.

Overall, as the CAREER study was the first ever research study into the ICM intervention, there are numerous implications for further research that can build on the findings of this study and improve on its limitations.

8.7. Implications for policy & practice

The Five Year Forward View for Mental Health in England (Mental Health Task Force, 2016) includes a recommendation that, following an investment from the Department of Work and Pensions (DWP), employment advisers are fully integrated into IAPT services across the country, with an aim of supporting 20,000 people into employment by the year 2020/21.

Later in 2016, it was announced that a pilot project would be launched in 2017 to increase the number of employment advisers in 40% of clinical commissioning group (CCG) areas in England. This investment would increase the ratio of employment advisers to IAPT therapists from 1:50 to 1:8 in those areas (Jarman, 2017). A national training programme will be delivered to new employment advisers, covering evidence-based interventions to support people back to work. As the evidence base for common mental health problems is limited, the government's Joint Work and Health Unit (WHU) are currently looking for evidence of employment support models that have been tested with this client group. The findings of the CAREER study could feed into this work.

As the UK welfare reform continues, a new welfare-to-work programme, 'the Work and Health Programme', will be launched in Autumn 2017. The programme will be targeted at people with health conditions and disabilities and will provide specialised support to people that have been unemployed and in receipt of welfare benefits for two years or more (Mirza-Davies & McGuinness, 2016). However the government's green paper on Work, Health and Disability (DWP & DH, 2016) suggests that more needs to be done to identify suitable employment interventions for people with complex needs who may require more specialist support than that provided by the Work and Health Programme. As a result of the green paper, three new controlled trials of IPS are being carried out in the UK, with results expected in 2018/19 (NHS England, 2017), and IPS has also been recently piloted in Jobcentre Plus with promising results (Hamilton et al, 2016). It is therefore likely that further exploration will occur into the benefits of IPS for people with mental health conditions, and the results of the CAREER study could contribute in some way towards this growing body of knowledge.

8.8. Discussion of the thesis in the context of the scientific framework

As outlined in Chapter One, ICM is a complex intervention which can be evaluated in accordance with the MRC guidance (Craig et al, 2010). Development of the ICM intervention had been pragmatic and had taken place over a period of five years in an NHS mental health trust in South London. Piloting had then been undertaken in the IAPT service and the intervention had been modified as necessary for people with common mental illness. As the

effectiveness and cost-effectiveness of the ICM intervention was unknown, a pragmatic RCT was a suitable method of evaluation to answer these questions.

In relation to the MRC framework in Figure 8.1 below, this thesis covers the entire 'Evaluation' stage for the ICM intervention. As discussed in Chapter one, the process is not always linear, and so the next stage could either be more development, feasibility/piloting, implementation, or a combination of these stages. The ICM intervention is already fully implemented in two IAPT services in South London (Croydon and Southwark), as well as several secondary care mental health teams in Southwark (for people with psychosis and mood and personality disorders), and has recently been expanded to other organisations outside the NHS for non-mental health participants, including a third sector substance misuse service provider (Lifeline) and Jobcentre Plus. The decision by local commissioners to implement the intervention in these services has largely been based on positive feedback from patients and clinical staff, in the absence of a scientific evaluation.

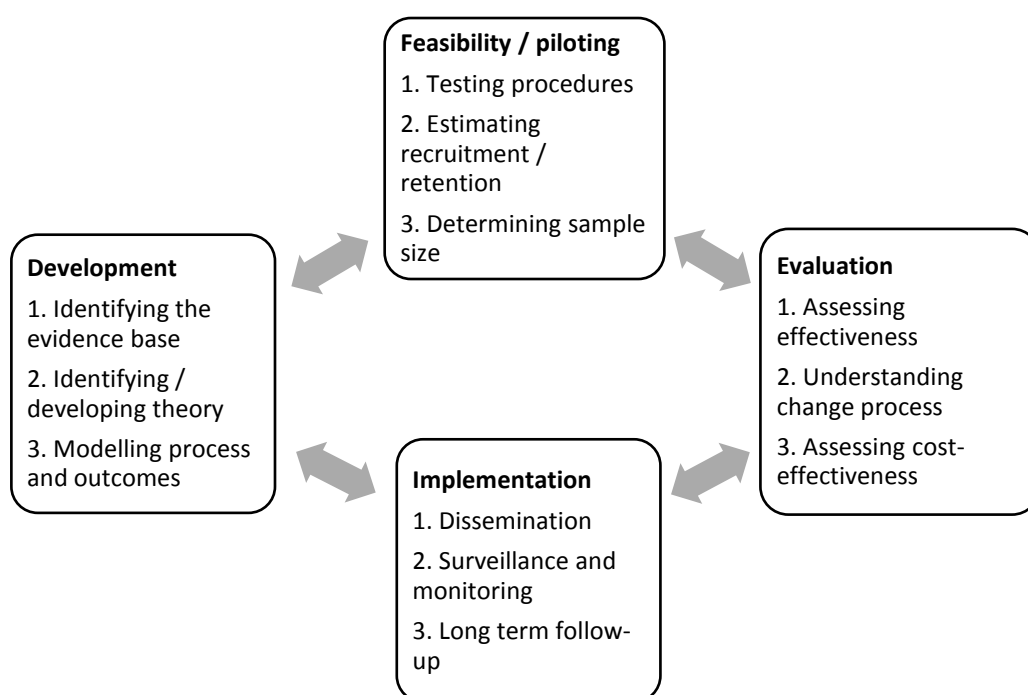
As the findings of the CAREER study are somewhat inconclusive and subject to a number of methodological limitations outlined above, it is unlikely that any changes will be made to current services solely based on this evaluation. However, the CAREER study has identified that the ICM intervention is not effective or cost-effective at 6 months compared to TAU as was originally hypothesised, so further exploration is needed into the reasons for this. A strong recommendation would be to conduct further research as suggested in 8.6, to see if there are ways of improving the intervention.

This process is likely to start with the 'Development' phase shown in Figure 8.1 below which should involve identifying the evidence base; substantially more research has been undertaken into supported employment since the ICM intervention was initially developed, and so a systematic review of the updated literature would be useful. Similarly, more is now known about the IAPT client group since the CAREER study started, as an extensive amount of data has been collected as part of the national IAPT programme, so it may be possible to develop the theoretical framework of the ICM intervention further, especially in relation to successful interventions for improving anxiety recovery rates, which were lower than depression recovery rates in the CAREER study. As the ICM intervention is already implemented within a variety of mental health and non-mental health services in South London, it may be possible to conduct small

scale feasibility / pilot studies to explore whether any developments to the ICM intervention are worth evaluating in a further pragmatic RCT.

An important part of the 'Implementation' phase listed in Figure 8.1 below is 'long-term follow-up'; it would be difficult to follow up the participants from the CAREER study because they were discharged at the end of the follow-up period and many are unlikely to still be in contact with services, however the viability of a follow-up study should still be explored before discounting this idea. Any future studies of the ICM intervention should include a longer follow-up period than the one used in the CAREER study, as discussed above, and preferably should include a long-term follow-up of at least 5 years in order to collect useful data about the long term effectiveness and cost-effectiveness of the intervention, especially with regards to sustained employment and productivity.

Figure 8.1 - Key elements of the development and evaluation process (Craig et al, 2010)



8.9. Conclusion

Overall, this thesis has achieved its aims. A written description of the ICM intervention has been produced and an intervention manual has been developed,

which was not only necessary for the CAREER study, but also creates the opportunity for the intervention to be replicated in further research studies and adapted if necessary.

The systematic review helped to inform the design of the CAREER study methods, but also highlighted the need for more economic evaluations of supported employment to be conducted. The quality of the economic evaluations included in the review were generally poor, so any future economic studies could improve on these weaknesses by following the points raised in the critical appraisal checklist (Drummond, 2005). Several economic studies of IPS have since been published (e.g. Knapp et al, 2013; Hoffmann et al, 2014; Schneider et al, 2016) so an updated systematic review might be beneficial.

The methods for the CAREER study were carefully designed within the resources available, but could be improved in future given what has now been learned from the study: the key improvements would be to conduct a fully funded study with a longer length of follow-up to enable crucial outcomes to be captured, with adequate resources to improve data collection at follow-up.

The results of the CAREER study revealed that the ICM intervention was not more effective or cost-effective than TAU at 6 month follow-up, however this outcome could have been influenced by the limitations of the study. Promising results in several of the secondary outcomes indicate that the ICM intervention does have a positive effect in comparison to TAU, however another trial would be needed to explore how great this effect is, whether it leads to an improvement in competitive employment outcomes, and whether the ICM intervention is cost-effective compared to TAU over a longer time period.

Overall, despite its limitations, the CAREER study has made a reasonable contribution to the field of knowledge by highlighting where further research could be undertaken, and how a study with this client group might differ to previous studies of IPS for people with severe mental illness.

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Appendices

Appendix 1 – Supported Employment Fidelity Scale

Taken from Becker et al, 2008.

STAFFING

1. **Caseload size:** Employment specialists have individual employment caseloads. The maximum caseload for any full-time employment specialist is 20 or fewer clients.

1= Ratio of 41 or more clients per employment specialist.

2= Ratio of 31-40 clients per employment specialist.

3= Ratio of 26-30 clients per employment specialist.

4= Ratio of 21-25 clients per employment specialist.

5= Ratio of 20 or fewer clients per employment specialist.

2. **Employment services staff:** Employment specialists provide only employment services.

1= Employment specialists provide employment services less than 60% of the time.

2= Employment specialists provide employment services 60 - 74% of the time.

3= Employment specialists provide employment services 75 - 89% of the time.

4= Employment specialists provide employment services 90 - 95% of the time.

5= Employment specialists provide employment services 96% or more of the time.

3. **Vocational generalists:** Each employment specialist carries out all phases of employment service, including intake, engagement, assessment, job placement, job coaching, and follow-along supports before step down to less intensive employment support from another MH practitioner. (Note: It is not expected that each employment specialist will provide benefits counseling to their clients. Referrals to a highly trained benefits counselor are in keeping with high fidelity, see Item # 1 in “Services”.)

1= Employment specialist only provides vocational referral service to vendors and other programs.

2= Employment specialist maintains caseload but refers clients to other programs for vocational services.

3= Employment specialist provides one to four phases of the employment service (e.g. intake, engagement, assessment, job development, job placement, job coaching, and follow along supports).

4= Employment specialist provides five phases of employment service but not the entire service.

5= Employment specialist carries out all six phases of employment service (e.g. program intake, engagement, assessment, job development/job placement, job coaching, and follow-along supports).

ORGANIZATION

4. **Integration of rehabilitation with mental health treatment thru team assignment:** Employment specialists are part of up to 2 mental health treatment teams from which at least 90% of the employment specialist’s caseload is comprised.

1= Employment specialists are part of a vocational program that functions separately from the mental health treatment.

2= Employment specialists are attached to three or more mental health treatment teams. OR Clients are served by individual mental health practitioners who are not organized into teams. OR Employment specialists

are attached to one or two teams from which less than 50% of the employment specialist's caseload is comprised.

3= Employment specialists are attached to one or two mental health treatment teams, from which at least 50 - 74% of the employment specialist's caseload is comprised.

4= Employment specialists are attached to one or two mental health treatment teams, from which at least 75 - 89% of the employment specialist's caseload is comprised.

5= Employment specialists are attached to one or two mental health treatment teams, from which 90 - 100% of the employment specialist's caseload is comprised.

5. **Integration of rehabilitation with mental health treatment thru frequent team member contact:** Employment specialists actively participate in weekly mental health treatment team meetings (not replaced by administrative meetings) that discuss individual clients and their employment goals with shared decision-making. Employment specialist's office is in close proximity to (or shared with) their mental health treatment team members. Documentation of mental health treatment and employment services are integrated in a single client chart. Employment specialists help the team think about employment for people who haven't yet been referred to supported employment services.

1= One or none is present.

2= Two are present

3= Three are present.

4= Four are present.

5= Five are present.

All five key components are present.

- Employment specialist attends weekly mental health treatment team meetings.

- Employment specialist participates actively in treatment team meetings with shared decision-making.
- Employment services documentation (i.e., vocational assessment/profile, employment plan, progress notes) is integrated into client's mental health treatment record.
- Employment specialist's office is in close proximity to (or shared with) their mental health treatment team members.
- Employment specialist helps the team think about employment for people who haven't yet been referred to supported employment services.

6. **Collaboration between employment specialists and Vocational**

Rehabilitation counselors: The employment specialists and VR counselors have frequent contact for the purpose of discussing shared clients and identifying potential referrals.

1= Employment specialists and VR counselors have client-related contacts (phone, e-mail, in person) less than quarterly to discuss shared clients and referrals. OR Employment specialists and VR counselors do not communicate.

2= Employment specialists and VR counselors have client-related contacts (phone, e-mail, in person) at least quarterly to discuss shared clients and referrals.

3= Employment specialists and VR counselors have client-related contacts (phone, e-mail, in-person) monthly to discuss shared clients and referrals.

4= Employment specialists and VR counselors have scheduled, face-to-face meetings at least quarterly, OR have client-related contacts (phone, e-mail, in person) weekly to discuss shared clients and referrals.

5= Employment specialists and VR counselors have scheduled, face-to-face meetings at least monthly and have client-related contacts (phone, e-mail, in person) weekly to discuss shared clients and referrals.

7. **Vocational unit:** At least 2 full-time employment specialists and a team leader comprise the employment unit. They have weekly client-based group supervision following the supported employment model in which strategies are identified and job leads are shared. They provide coverage for each other's caseload when needed.

1= Employment specialists are not part of a vocational unit.

2= Employment specialists have the same supervisor but do not meet as a group. They do not provide back-up services for each other's caseload.

3= Employment specialists have the same supervisor and discuss clients between each other on a weekly basis. They provide back-up services for each other's caseloads as needed. OR, If a program is in a rural area where employment specialists are geographically separate with one employment specialist at each site, the employment specialists meet 2-3 times monthly with their supervisor by teleconference.

4= At least 2 employment specialists and a team leader form an employment unit with 2-3 regularly scheduled meetings per month for client-based group supervision in which strategies are identified and job leads are shared and discuss clients between each other. They provide coverage for each other's caseloads when needed. OR, If a program is in a rural area where employment specialists are geographically separate with one employment specialist at each site, the employment specialists meet 2-3 times per month with their supervisor in person or by teleconference and mental health practitioners are available to help the employment specialist with activities such as taking someone to work or picking up job applications.

5= At least 2 full-time employment specialists and a team leader form an employment unit with weekly client-based group supervision based on the supported employment model in which strategies are identified and job leads are shared. They provide coverage for each other's caseloads when needed.

8. **Role of employment supervisor:** Supported employment unit is led by a supported employment team leader. Employment specialists' skills are developed and improved through outcome-based supervision. All five key roles of the employment supervisor are present.

1= One or none is present.

2= Two are present.

3= Three are present.

4= Four are present.

5= Five are present.

Five key roles of the employment supervisor:

- One full-time equivalent (FTE) supervisor is responsible for no more than 10 employment specialists. The supervisor does not have other supervisory responsibilities. (Program leaders supervising fewer than ten employment specialists may spend a percentage of time on other supervisory activities on a prorated basis. For example, an employment supervisor responsible for 4 employment specialists may be devoted to SE supervision half time.)
- Supervisor conducts weekly supported employment supervision designed to review client situations and identify new strategies and ideas to help clients in their work lives.
- Supervisor communicates with mental health treatment team leaders to ensure that services are integrated, to problem solve programmatic issues (such as referral process, or transfer of follow-along to mental health workers) and to be a champion for the value of work. Attends a meeting for each mental health treatment team on a quarterly basis.
- Supervisor accompanies employment specialists, who are new or having difficulty with job development, in the field monthly to improve skills by observing, modeling, and giving feedback on skills, e.g., meeting employers for job development.
- Supervisor reviews current client outcomes with employment specialists and sets goals to improve program performance at least quarterly.

9. **Zero exclusion criteria:** All clients interested in working have access to supported employment services regardless of job readiness factors, substance abuse, symptoms, history of violent behavior, cognition impairments, treatment non-adherence, and personal presentation. These

apply during supported employment services too. Employment specialists offer to help with another job when one has ended, regardless of the reason that the job ended or number of jobs held. If VR has screening criteria, the mental health agency does not use them to exclude anybody. Clients are not screened out formally or informally.

1= There is a formal policy to exclude clients due to lack of job readiness (e.g., substance abuse, history of violence, low level of functioning, etc.) by employment staff, case managers, or other practitioners.

2= Most clients are unable to access supported employment services due to perceived lack of job readiness (e.g., substance abuse, history of violence, low level of functioning, etc.).

3= Some clients are unable to access supported employment services due to perceived lack of job readiness (e.g., substance abuse, history of violence, low level of functioning, etc.).

4= No evidence of exclusion, formal or informal. Referrals are not solicited by a wide variety of sources. Employment specialists offer to help with another job when one has ended, regardless of the reason that the job ended or number of jobs held.

5= All clients interested in working have access to supported employment services. Mental health practitioners encourage clients to consider employment, and referrals for supported employment are solicited by many sources. Employment specialists offer to help with another job when one has ended, regardless of the reason that the job ended or number of jobs held.

10. **Agency focus on competitive employment:** Agency promotes competitive work through multiple strategies. Agency intake includes questions about interest in employment. Agency displays written postings (e.g., brochures, bulletin boards, posters) about employment and supported employment services. The focus should be with the agency programs that provide services to adults with severe mental illness. Agency supports ways for clients to share work stories with other clients and staff. Agency measures rate of competitive employment and shares this information with agency leadership and staff.

1= One or none is present.

2= Two are present.

3= Three are present.

4= Four are present.

5= Five are present.

Agency promotes competitive work through multiple strategies:

- Agency intake includes questions about interest in employment.
- Agency includes questions about interest in employment on all annual (or semi- annual) assessment or treatment plan reviews.
- Agency displays written postings (e.g., brochures, bulletin boards, posters) about working and supported employment services, in lobby and other waiting areas.
- Agency supports ways for clients to share work stories with other clients and staff (e.g., agency-wide employment recognition events, in-service training, peer support groups, agency newsletter articles, invited speakers at client treatment groups, etc.) at least twice a year.
- Agency measures rate of competitive employment on at least a quarterly basis and shares outcomes with agency leadership and staff.

11. Executive team support for SE: Agency executive team members (e.g., CEO/Executive Director, Chief Operating Officer, QA Director, Chief Financial Officer, Clinical Director, Medical Director, Human Resource Director) assist with supported employment implementation and sustainability. All five key components of executive team support are present.

1= One is present.

2= Two are present.

3= Three are present.

4= Four are present.

5= Five are present.

- Executive Director and Clinical Director demonstrate knowledge regarding the principles of evidence-based supported employment.
- Agency QA process includes an explicit review of the SE program, or components of the program, at least every 6 months through the use of the Supported Employment Fidelity Scale or until achieving high fidelity, and at least yearly thereafter. Agency QA process uses the results of the fidelity assessment to improve SE implementation and sustainability.
- At least one member of the executive team actively participates at SE leadership team meetings (steering committee meetings) that occur at least every six months for high fidelity programs and at least quarterly for programs that have not yet achieved high fidelity. Steering committee is defined as a diverse group of stakeholders charged with reviewing fidelity, program implementation, and the service delivery system. Committee develops written action plans aimed at developing or sustaining high fidelity services.
- The agency CEO/Executive Director communicates how SE services support the mission of the agency and articulates clear and specific goals for SE and/or competitive employment to all agency staff during the first six months and at least annually (i.e., SE kickoff, all-agency meetings, agency newsletters, etc.). This item is not delegated to another administrator.
- SE program leader shares information about EBP barriers and facilitators with the executive team (including the CEO) at least twice each year. The executive team helps the program leader identify and implement solutions to barriers.

SERVICES

12. **Work incentives planning:** All clients are offered assistance in obtaining comprehensive, individualized work incentives planning before starting a new job and assistance accessing work incentives planning thereafter when making decisions about changes in work hours and pay. Work incentives

planning includes SSA benefits, medical benefits, medication subsidies, housing subsidies, food stamps, spouse dependent children benefits, past job retirement benefits and any other source of income. Clients are provided information and assistance about reporting earnings to SSA, housing programs, VA programs, etc., depending on the person's benefits.

1= Work incentives planning is not readily available or easily accessible to most clients served by the agency.

2= Employment specialist gives client contact information about where to access information about work incentives planning.

3= Employment specialist discusses with each client changes in benefits based on work status.

4= Employment specialist or other MH practitioner offer clients assistance in obtaining comprehensive, individualized work incentives planning by a person trained in work incentives planning prior to client starting a job.

5= Employment specialist or other MH practitioner offer clients assistance in obtaining comprehensive, individualized work incentives planning by a specially trained work incentives planner prior to starting a job. They also facilitate access to work incentives planning when clients need to make decisions about changes in work hours and pay. Clients are provided information and assistance about reporting earnings to SSA, housing programs, etc., depending on the person's benefits.

13. **Disclosure:** Employment specialists provide clients with accurate information and assist with evaluating their choices to make an informed decision regarding what is revealed to the employer about having a disability.

1= None is present.

2= One is present.

3= Two are present.

4= Three are present.

5= Four are present.

- Employment specialists do not require all clients to disclose their psychiatric disability at the work site in order to receive services.
- Employment specialists offer to discuss with clients the possible costs and benefits (pros and cons) of disclosure at the work site in advance of clients disclosing at the work site. Employment specialists describe how disclosure relates to requesting accommodations and the employment specialist's role communicating with the employer.
- Employment specialists discuss specific information to be disclosed (e.g., disclose receiving mental health treatment, or presence of a psychiatric disability, or difficulty with anxiety, or unemployed for a period of time, etc.) and offers examples of what could be said to employers.
- Employment specialists discuss disclosure on more than one occasion (e.g., if clients have not found employment after two months or if clients report difficulties on the job.)

14. **Ongoing, work-based vocational assessment:** Initial vocational assessment occurs over 2-3 sessions and is updated with information from work experiences in competitive jobs. A vocational profile form that includes information about preferences, experiences, skills, current adjustment, strengths, personal contacts, etc, is updated with each new job experience. Aims at problem solving using environmental assessments and consideration of reasonable accommodations. Sources of information include the client, treatment team, clinical records, and with the client's permission, from family members and previous employers.

1= Vocational evaluation is conducted prior to job placement with emphasis on office-based assessments, standardized tests, intelligence tests, work samples.

2= Vocational assessment may occur through a stepwise approach that includes: prevocational work experiences (e.g., work units in a day program), volunteer jobs, or set aside jobs (e.g., NISH jobs agency-run businesses, sheltered workshop jobs, affirmative businesses, enclaves).

3= Employment specialists assist clients in finding competitive jobs directly without systematically reviewing interests, experiences, strengths, etc. and do not routinely analyze job loss (or job problems) for lessons learned.

4= Initial vocational assessment occurs over 2-3 sessions in which interests and strengths are explored. Employment specialists help clients learn from each job experience and also work with the treatment team to analyze job loss, job problems and job successes. They do not document these lessons learned in the vocational profile, OR The vocational profile is not updated on a regular basis.

5= Initial vocational assessment occurs over 2-3 sessions and information is documented on a vocational profile form that includes preferences, experiences, skills, current adjustment, strengths, personal contacts, etc. The vocational profile form is used to identify job types and work environments. It is updated with each new job experience. Aims at problem solving using environmental assessments and consideration of reasonable accommodations. Sources of information include the client, treatment team, clinical records, and with the client's permission, from family members and previous employers. Employment specialists help clients learn from each job experience and also work with the treatment team to analyze job loss, job problems and job successes.

15. **Rapid job search for competitive job:** Initial employment assessment and first face-to-face employer contact by the client or the employment specialist about a competitive job occurs within 30 days (one month) after program entry.

1= First face-to-face contact with an employer by the client or the employment specialist about a competitive job is on average 271 days or more (> 9 mos.) after program entry.

2= First face-to-face contact with an employer by the client or the employment specialist about a competitive job is on average between 151 and 270 days (5-9 mos.) after program entry.

3= First face-to-face contact with an employer by the client or the employment specialist about a competitive job is on average between 61 and 150 days (2-5 mos.) after program entry.

4= First face-to-face contact with an employer by the client or the employment specialist about a competitive job is on average between 31 and 60 days (1-2 mos.) after program entry.

5= The program tracks employer contacts and the first face-to-face contact with an employer by the client or the employment specialist about a competitive job is on average within 30 days (one month) after program entry.

16. Individualized job search: Employment specialists make employer contacts aimed at making a good job match based on clients' preferences (relating to what each person enjoys and their personal goals) and needs (including experience, ability, symptomatology, health, etc.) rather than the job market (i.e., those jobs that are readily available). An individualized job search plan is developed and updated with information from the vocational assessment/profile form and new job/educational experiences.

1= Less than 25% of employer contacts by the employment specialist are based on job choices which reflect client's preferences, strengths, symptoms, etc. rather than the job market.

2= 25-49% of employer contacts by the employment specialist are based on job choices which reflect client's preferences, strengths, symptoms, etc., rather than the job market.

3= 50-74% of employer contacts by the employment specialist are based on job choices which reflect client's preferences, strengths, symptoms, etc., rather than the job market.

4= 75-89% of employer contacts by the employment specialist are based on job choices which reflect client's preferences, strengths, symptoms, etc., rather than the job market and are consistent with the current employment plan.

5= Employment specialist makes employer contacts based on job choices which reflect client's preferences, strengths, symptoms, lessons learned from

previous jobs etc., 90-100% of the time rather than the job market and are consistent with the current employment/job search plan. When clients have limited work experience, employment specialists provide information about a range of job options in the community.

17. Job development - Frequent employer contact: Each employment specialist makes at least 6 face to-face employer contacts per week on behalf of clients looking for work. (Rate for each then calculate average and use the closest scale point.) An employer contact is counted even when an employment specialist meets the same employer more than one time in a week, and when the client is present or not present. Client-specific and generic contacts are included. Employment specialists use a weekly tracking form to document employer contacts.

1= Employment specialist makes less than 2 face-to-face employer contacts that are client-specific per week.

2= Employment specialist makes 2 face-to-face employer contacts per week that are client-specific, OR Does not have a process for tracking.

3= Employment specialist makes 4 face-to-face employer contacts per week that are client-specific, and uses a tracking form that is reviewed by the SE supervisor on a monthly basis.

4= Employment specialist makes 5 face-to-face employer contacts per week that are client-specific, and uses a tracking form that is reviewed by the SE supervisor on a weekly basis. 150

5= Employment specialist makes 6 or more face-to-face employer contacts per week that are client specific, or 2 employer contacts times the number of people looking for work when there are less than 3 people looking for work on their caseload (e.g., new program). In addition, employment specialist uses a tracking form that is reviewed by the SE supervisor on a weekly basis.

18. Job development - Quality of employer contact: Employment specialists build relationships with employers through multiple visits in person that are planned to learn the needs of the employer, convey what the SE program

offers to the employer, describe client strengths that are a good match for the employer. (Rate for each employment specialist, then calculate average and use the closest scale point.)

1= Employment specialist meets employer when helping client to turn in job applications, OR Employment specialist rarely makes employer contacts.

2= Employment specialist contacts employers to ask about job openings and then shares these "leads" with clients.

3= Employment specialist follows up on advertised job openings by introducing self, describing program, and asking employer to interview client.

4= Employment specialist meets with employers in person whether or not there is a job opening, advocates for clients by describing strengths and asks employers to interview clients.

5= Employment specialist builds relationships with employers through multiple visits in person that are planned to learn the needs of the employer, convey what the SE program offers to the employer, describe client strengths that are a good match for the employer.

19. Diversity of job types: Employment specialists assist clients in obtaining different types of jobs.

1= Employment specialists assist clients obtain different types of jobs less than 50% of the time.

2= Employment specialists assist clients obtain different types of jobs 50-59% of the time.

3= Employment specialists assist clients obtain different types of jobs 60-69% of the time.

4= Employment specialists assist clients obtain different types of jobs 70-84% of the time.

5= Employment specialists assist clients obtain different types of jobs 85-100% of the time.

20. **Diversity of employers:** Employment specialists assist clients in obtaining jobs with different employers.

1= Employment specialists assist clients obtain jobs with the different employers less than 50% of the time.

2= Employment specialists assist clients obtain jobs with the same employers 50-59% of the time.

3= Employment specialists assist clients obtain jobs with different employers 60-69% of the time.

4= Employment specialists assist clients obtain jobs with different employers 70-84% of the time.

5= Employment specialists assist clients obtain jobs with different employers 85-100% of the time.

21. **Competitive jobs:** Employment specialists provide competitive job options that have permanent status rather than temporary or time-limited status, e.g., TE (transitional employment positions). Competitive jobs pay at least minimum wage, are jobs that anyone can apply for and are not set aside for people with disabilities. (Seasonal jobs and jobs from temporary agencies that other community members use are counted as competitive jobs.)

1= Employment specialists provide options for permanent, competitive jobs less than 64% of the time, OR There are fewer than 10 current jobs.

2= Employment specialists provide options for permanent, competitive jobs about 65- 74% of the time.

3= Employment specialists provide options for permanent competitive jobs about 75-84%% of the time.

4= Employment specialists provide options for permanent competitive jobs about 85-94% of the time.

5= 95% or more competitive jobs held by clients are permanent.

22. Individualized follow-along supports: Clients receive different types of support for working a job that are based on the job, client preferences, work history, needs, etc. Supports are provided by a variety of people, including treatment team members (e.g., medication changes, social skills training, encouragement), family, friends, co-workers (i.e., natural supports), and employment specialist. Employment specialist also provides employer support (e.g., educational information, job, accommodations) at client's request. Employment specialist offers help with career development, i.e., assistance with education, a more desirable job, or more preferred job duties.

1= Most clients do not receive supports after starting a job.

2= About half of the working clients receive a narrow range of supports provided primarily by the employment specialist.

3= Most working clients receive a narrow range of supports that are provided primarily by the employment specialist.

4= Clients receive different types of support for working a job that are based on the job, client preferences, work history, needs, etc. Employment specialists provide employer supports at the client's request.

5= Clients receive different types of support for working a job that are based on the job, client preferences, work history, needs, etc. Employment specialist also provides employer support (e.g., educational information, job accommodations) at client's request. The employment specialist helps people move onto more preferable jobs and also helps people with school or certified training programs. The site provides examples of different types of support including enhanced supports by treatment team members.

23. Time-unlimited follow-along supports: Employment specialists have face-to-face contact within 1 week before starting a job, within 3 days after starting a job, weekly for the first month, and at least monthly for a year or more, on average, after working steadily, and desired by clients. Clients are transitioned to step down job supports from a mental health worker following steady employment. Employment specialists contact clients within 3 days of learning about the job loss.

1= Employment specialist does not meet face-to-face with the client after the first month of starting a job.

2= Employment specialist has face-to-face contact with less than half of the working clients for at least 4 months after starting a job.

3= Employment specialist has face-to-face contact with at least half of the working clients for at least 4 months after starting a job.

4= Employment specialist has face-to-face contact with working clients weekly for the first month after starting a job, and at least monthly for a year or more, on average, after working steadily, and desired by clients.

5= Employment specialist has face-to-face contact within 1 week before starting a job, within 3 days after starting a job, weekly for the first month, and at least monthly for a year or more, on average, after working steadily and desired by clients. Clients are transitioned to step down job supports, from a mental health worker following steady employment clients. Clients are transitioned to step down job supports from a mental health worker following steady employment. Employment specialist contacts clients within 3 days of hearing about the job loss.

24. **Community-based services:** Employment services such as engagement, job finding and follow-along supports are provided in natural community settings by all employment specialists. (Rate each employment specialist based upon their total weekly scheduled work hours then, calculate the average and use the closest scale point.)

1= Employment specialist spends 30% time or less in the scheduled work hours in the community.

2= Employment specialist spends 30 - 39% time of total scheduled work hours in the community.

3= Employment specialist spends 40 -49% of total scheduled work hours in the then community.

4= Employment specialist spends 50 - 64% of total scheduled work hours in the community.

5= Employment specialist spends 65% or more of total scheduled work hours in the community.

25. Assertive engagement and outreach by integrated treatment team:

Service termination is not based on missed appointments or fixed time limits. Systematic documentation of outreach attempts. Engagement and outreach attempts made by integrated team members. Multiple home/community visits. Coordinated visits by employment specialist with integrated team member. Connect with family, when applicable. Once it is clear that the client no longer wants work to or continue SE services, the team stops outreach.

1= Evidence that 2 or less strategies for engagement and outreach are used.

2= Evidence that 3 strategies for engagement and outreach are used.

3= Evidence that 4 strategies for engagement and outreach are used.

4= Evidence that 5 strategies for engagement and outreach are used.

5= Evidence that all 6 strategies for engagement and outreach are used: i) Service termination is not based on missed appointments or fixed time limits. ii) Systematic documentation of outreach attempts. iii) Engagement and outreach attempts made by integrated team members. iv) Multiple home/community visits. v) Coordinated visits by employment specialist with integrated team member. vi) Connect with family, when applicable.

Appendix 2 – Systematic Search Strategy

EMBASE Strategy

1. (clin\$ adj2 trial).mp.
2. ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).mp.
3. (random\$ adj5 (assign\$ or allocat\$)).mp.
4. randomi\$.mp.
5. crossover.mp.
6. exp randomized-controlled-trial/
7. exp double-blind-procedure/
8. exp crossover-procedure/
9. exp single-blind-procedure/
10. exp randomization/
11. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10
12. support\$ employ\$.ti,ab.
13. employ\$ support.ti,ab.
14. support\$ work\$.ti,ab.
15. work\$ support.ti,ab.
16. (individual placement adj2 support).ti,ab.
17. 12 or 13 or 14 or 15 or 16
18. 11 and 17
19. exp mental disease/
20. 18 and 19
21. exp economic evaluation/
22. economic\$.ti,ab.
23. cost\$.ti,ab.

24. 21 or 22 or 23

25. 20 and 24

Medline Strategy

1. exp clinical trial/

2. exp randomized controlled trials/

3. exp double-blind method/

4. exp single-blind method/

5. exp cross-over studies/

6. randomized controlled trial.pt.

7. clinical trial.pt.

8. controlled clinical trial.pt.

9. (clinic\$ adj2 trial).mp.

10. (random\$ adj5 control\$ adj5 trial\$).mp.

11. (crossover or cross-over).mp.

12. ((singl\$ or double\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).mp.

13. randomi\$.mp.

14. (random\$ adj5 (assign\$ or allocat\$ or assort\$ or reciev\$)).mp.

15. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14

16. exp Employment, Supported/

17. support\$ employ\$.ti,ab.

18. employ\$ support.ti,ab.

19. support\$ work\$.ti,ab.

20. work\$ support.ti,ab.

21. (individual placement adj2 support).ti,ab.

22. 16 or 17 or 18 or 19 or 20 or 21

23. 15 and 22

24. exp Mental Disorders/

25. 23 and 24

26. economic\$.ti,ab.

27. cost\$.ti,ab.

28. 26 or 27

29. 25 and 28

PsycINFO Strategy

1. randomi\$.mp.

2. ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).mp.

3. placebo\$.mp.

4. exp placebo/

5. crossover.mp.

6. exp treatment effectiveness evaluation/

7. exp mental health program evaluation/

8. (random\$ adj (assign\$ or allocate\$)).mp.

9. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8

10. support\$ employ\$.ti,ab.

11. employ\$ support.ti,ab.

12. support\$ work\$.ti,ab.

13. work\$ support.ti,ab.

14. (individual placement adj2 support).ti,ab.

15. 10 or 11 or 12 or 13 or 14

16. 9 and 15
17. exp Mental Disorders/
18. 16 and 17
19. economic\$.ti,ab.
20. cost\$.ti,ab.
21. 19 or 20
22. 18 and 21

Appendix 3 – Data Extraction Form

General Information

Name of
Researcher

Date of Data
Extraction

1. Reference ID

2. First Author

3. Year

4. Article Title

5. Citation

6. Type of Publication

7. Country of Origin

Study Characteristics

8. Aim/Objectives of Study

Effectiveness /
efficacy

Cost-
effectiveness

Assessment of
outcome

9. Study Design

Experimental	
RCT	
Quasi-experimental	

Observational	
Cohort	
Cross-sectional	
Controlled before and after	
Uncontrolled before and after	
Case series	
Expert opinion	
Other, describe:	

10. Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
i.	i.
ii.	ii.
iii.	iii.
iv.	iv.

v.	v.

11. Recruitment Method

12. Allocation Concealment Method

Participant Characteristics

13. Age Range (planned)

	years to		years

14. Mean age (actual)

	years

15. Gender (planned)

	% Male		% Female

16. Gender (actual)

	% Male		% Female

17. Ethnicity (planned)

	% White Origin		% BAME Origin

18. Ethnicity (actual)

	% White Origin		% BAME Origin

19. ICD-10 category

F0: Organic, including symptomatic, mental disorders	
F1: Mental and behavioural disorders due to use of psychoactive substances	
F2: Schizophrenia, schizotypal and delusional disorders	
F3: Mood [affective] disorders	
F4: Neurotic, stress-related and somatoform disorders	
F5: Behavioural syndromes associated with physiological disturbances and physical factors	
F6: Disorders of personality and behaviour in adult persons	
F7: Mental retardation	
F8: Disorders of psychological development	
F9: Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	
Unspecified mental disorder	

20. Occupational Status

Employed

Unemployed

Student

21. Time Since Last Employment

Sample Size

	Estimated	Recruited	Excluded	Analysed
22. Experimental Group 1				
23. Experimental Group 2				
24. Comparison Group 1				
25. Comparison Group 2				

Intervention/s

	Experimental Intervention 1	Experimental Intervention 2
26. Title		
27. Provider		
28. Setting		
29. Description		
30. Frequency		
31. Length		
32. Model		
	Comparison Intervention 1	Comparison Intervention 2
33. Title		

34. Provider		
35. Setting		
36. Description		
37. Frequency		
38. Length		
39. Model		

Outcome Measures

40. Primary Outcome Measure

41. Description of Outcome

42. Measurement Tool Used

43. Unit of Measurement

44. Length of Follow-up (to final follow up)

Number		Unit	
		Days	
		Weeks	
		Months	
		Years	

45. Other Outcome Measures

i.

ii.

iii.

iv.

v.

Outcome Data

46. Type of Analysis Used

47. Results of Study Analysis

Economic evaluation

48. Cost data available?

- ☐ Yes
☐ No

49. Resource use data available?

- ☐ Yes
☐ No

50. Financial year

51. Method of economic evaluation

- ☐ Cost-effectiveness
☐ Cost-utility
☐ Cost-benefit
☐ Cost-consequences
☐ Cost-offset
☐ Cost-minimisation
☐ Cost study

52. Perspective (tick all that apply)

- ☐ Intervention
☐ Hospital services
☐ Primary health services
☐ All health services
☐ All health & social services
☐ All health, social & education services
☐ All health, social and non-statutory services
☐ All health, social, education and non-statutory
☐ Criminal justice
☐ Family/carer/patient
☐ Productivity losses
☐ Other – specify:

53. Methods of measuring resource use (tick all that apply)

- ☐ Service use schedule
☐ Patient diaries
☐ Records
☐ Literature
☐ Expert opinion

54. Source of unit cost data (tick all that apply)

- ☐ Direct valuation
☐ National published unit costs
☐ Prices/charges
☐ Literature

Checklist for assessing economic evaluations – Drummond, et al 2005

Y =
yes
N = no

55.	Was a well-defined question posed in answerable form?	
56.	Was a comprehensive description of competing alternatives given?	
57.	Was the effectiveness of the programmes or services established?	
58.	Were all important & relevant costs and consequences for each alternative identified?	
59.	Were costs and consequences measured accurately in appropriate physical units?	
60.	Were costs and consequences valued credibly?	
61.	Were costs and consequences adjusted for differential timing?	
62.	Was an incremental analysis of costs and consequences of alternatives performed?	
63.	Was allowance made for uncertainty in the estimates of costs and consequences?	
64.	Did the presentation and discussion of results include all issues of concern to users?	

Appendix 4 – Service User Questionnaire

1a. Is anything in the questionnaire ambiguous? Yes No

If you have answered yes, please give details here (including reference to specific questions and/or page numbers):

1b. Is any of the language difficult to understand? Yes No

If you have answered yes, please give details here (including reference to specific questions and/or page numbers):

1c. Is the structure difficult to follow? Yes No

If you have answered yes, please give details here (including reference to specific questions and/or page numbers):

2a. Is any of the language not relevant to you? Yes No

If you have answered yes, please give details here (including reference to specific questions and/or page numbers):

2b. Are any of the questions not relevant to you? Yes No

If you have answered yes, please give details here (including reference to specific questions and/or page numbers):

3a. Are any of the questions biased towards any particular groups of ethnicity?

Yes No

If you have answered yes, please give details here (including reference to specific questions and/or page numbers):

3b. Are any of the questions biased towards any particular groups of age or gender?

Yes No

If you have answered yes, please give details here (including reference to specific questions and/or page numbers):

4. How long did the questionnaire take to complete?

5. Additional Comments and Suggestions about the questionnaire:

Appendix 5 – Participant Information Sheet

Participant Information Sheet

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

Individual Career Management (ICM) Study

Introduction

My name is Claire Price and I am conducting a student research study within the Southwark Psychological Therapies Service at the South London and Maudsley NHS Foundation Trust. I am a Chartered Occupational Psychologist and I am employed by the South London and Maudsley NHS Foundation Trust as an Employment and Social Inclusion Manager in the London Borough of Southwark.

I am the principal investigator for the research study and my two supervisors are Dr Sarah Byford and Professor Tom Craig. I also have a team of research assistants who are employed by the South London and Maudsley NHS Foundation Trust. One of the research assistants may have given you this information sheet.

The research will be looking at the effectiveness of a new type of support for people who are unemployed or off sick from work. It is called Individual Career Management (ICM) support.

I would like to invite you to participate in this research study. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me or one of the research assistants if there is anything that is unclear or if you would like more information.

Take time to decide whether or not you wish to take part. Thank you for reading this.

What is the purpose of the study?

Many people who experience common mental health problems such as anxiety or depression have difficulties with career-related issues, such as finding a new job, developing new skills, talking to their employer about their illness, dealing with work-related stress or adjusting to work after a period of being off sick.

The Southwark Psychological Therapies Service offers a range of psychological therapies that help people deal with anxiety and depression, and develop ways of coping with stress. They also provide advice about local employment services that may help with some of the practical issues of returning to work.

In addition to these standard care services, the Southwark Psychological Therapies Service is offering a new type of support that is not usually available within the NHS. It is called Individual Career Management (ICM) support, and it is designed to be offered alongside psychological therapy.

The research is looking at whether receiving psychological therapy plus Individual Career Management support is more effective than receiving psychological therapy alone, for helping people with common mental health problems obtain and retain employment, and whether there are any additional benefits for patients.

What does Individual Career Management support involve?

Individual career management support involves one-to-one support from a personal career coach. They could help with a range of things including: career advice; redundancy coaching; education & training advice; volunteering advice; CV development; help with application forms; interview skills advice; job search support; return to work support; in-work benefits advice; or advice about disclosure of health problems to employers.

Most people usually opt for between one and four sessions of ICM support, usually once a week or once a fortnight, but it depends on the individual. At the end of the sessions, the career coach would help the individual review their progress against their personal goals. In some cases, additional sessions may be offered. Sometimes a career coach could refer them on to another service or organisation who could offer more specialist support.

Appointments are usually in a private room, either at a health centre or job agency. Appointments usually last for about an hour, but again, this is up to the individual. There is also the opportunity to attend workshops to meet other people who are receiving individual career management support. Workshops are run by trained career coaches.

Attendance at appointments is completely voluntary – this means there is no obligation to attend if a person doesn't want to. Receiving individual career management support does not affect a person's unemployment benefits, or the healthcare they receive from the NHS.

What does the research study involve?

In order to find out if Individual Career Management support is effective, we need to compare the results of a group of people receiving it, to a group of people who are not. We will allocate people randomly to groups and track people in both groups over a six month period to see if there are any differences in outcomes such as employment status, wellbeing, satisfaction and self-esteem. If there is a difference in these outcomes in favour of Individual Career Management, we will know that Individual Career Management support is an effective intervention. If there is not a difference, we will know that Individual Career Management support may not be any more effective than standard care.

Why have I been chosen?

We are recruiting participants from the Southwark Psychological Therapies Service. You have been offered the opportunity to take part because you are currently receiving or awaiting psychological therapy treatment from the

Southwark Psychological Therapies Service and you have expressed an interest in receiving some support to return to work.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and will be asked to sign a consent form.

If you decide not to take part you will not be able to access Individual Career Management support, however your psychological therapist will be able to tell you about other employment services in your area who may be able to help you. You will still be able to access psychological therapy from the Southwark Psychological Therapies Service.

What are the possible benefits of taking part?

If you take part in the study, you have a 50% chance of being offered Individual Career Management support. This support may help you move towards your personal career goals. You will also be contributing towards an increased understanding of what services may help people with anxiety or depression to achieve successful employment outcomes.

What are the possible risks of taking part?

We do not think there will be any disadvantages or risks to you taking part in this study, however participation will involve some of your time.

What will happen to me if I take part?

You will be required to attend three meetings with a researcher over a 6 month period. The process will be as follows:

1. You will be invited to attend a meeting with a researcher who will explain the details of the study and answer any questions you may have. This should take approximately half an hour. You will be given some information about the study to take away and read through to help you decide if you would like to take part.
2. The researcher will contact you soon after your first meeting (within 2-3 days) to ask you if you would like to take part in the study. If your answer is yes, you will be invited to attend the second meeting.
3. At the second meeting the researcher will ask you to sign a consent form to confirm that you agree to take part in the study. They will ask you to fill in some questionnaires about your current employment status, health status and wellbeing. This should take approximately 1 hour. Your answers to the questionnaires will be kept confidential.
4. After the meeting, your name will be put into a computerised system that will randomly allocate you to Group A or Group B. This means that there is a 50% chance of you being allocated to either group, and the

researcher does not have any control over the group you are allocated to. This is very important because we want both groups to be equally representative of the local population.

5. A researcher will contact you to inform you of the group you have been allocated to. If you are allocated to Group A you will be offered Individual Career Management support and will be introduced to your personal Career Specialist. If you are allocated to Group B you will not be offered Individual Career Management support. However your Southwark Psychological Therapies Service therapist will give you details of other employment services available in your area that may be useful and you will continue to receive our standard care services.
6. You will be asked to attend a final meeting with the researcher after a period of six months. During this meeting you will be asked to fill in some questionnaires similar to the ones in the first meeting. Again, the meeting should last approximately 1 hour and your answers to the questionnaires will be kept confidential.
7. After the final meeting you will be discharged from the study and the researcher will inform you of any further employment support that may be available to you if you should need it. You will receive a report of the results of the study when it is completed.

Each meeting with a researcher will take place at one of the Southwark Psychological Therapies Service sites. We will do our best to arrange meetings at a time, date and location that is convenient for you.

Is this study fair? If I am in Group B does this mean I'm at a disadvantage compared to those in Group A?

We feel that random allocation is the fairest way to allocate people to groups. Although people in Group B will not be offered Individual Career Management support, we don't feel that they will be at a disadvantage as we don't yet know if Individual Career Management support is any more effective than the employment support you might get elsewhere.

Can I withdraw from the study?

Yes, you are free to withdraw from the study at any time until publication of the results, without giving a reason. If you decide to withdraw from the study, no further information will be collected from you and we will ask you if you wish for any of your previous information to be deleted. If you are in Group A and you withdraw within the six month study period, you will be able to continue receiving Individual Career Management support if you wish.

If you withdraw from the study you will still be able to access psychological therapy treatment from Southwark Psychological Therapies Service.

What happens when the research study stops?

After the study period ends, you will be given information about further employment services available in your local area if you should need it. This may include Individual Career Management support if the results indicate that it is successful and there is funding available to continue providing the service. If this is the case, it will be offered to people in both Group A and Group B. The researcher will explain to you at the end of the study whether Individual Career Management support is available at that point.

Is this study funded by an external organisation?

No. This study is not funded by an external organisation. It is managed by the South London and Maudsley NHS Foundation Trust and King's College London, part of King's Health Partners Academic Health Sciences Centre.

Will my taking part in this study be kept confidential?

All information collected about you during the course of the research will be kept strictly confidential. Your personal details are stored in a separate locked cabinet from all the information we collect and we never put your name on any of the questionnaires that we ask you to fill out. Instead we allocate a unique identification code to each participant.

The only people who will know you are taking part in the study will be the researcher and her supervisors, your Southwark Psychological Therapies Service therapist, your career specialist (if you are in group A), and the supervisor of the therapist and career specialist. It is necessary for them to know you are taking part in the study as they will be responsible for ensuring you are offered the correct intervention.

What information will be collected about me?

The questionnaires we give you will contain personal questions such as your age, employment status, gender and ethnicity. There will also be a selection of questionnaires that will be used to measure other things about you such as your level of anxiety, depression, self esteem and quality of life. You may have already come across some of these scales in your therapy sessions. The questions have been carefully selected and we feel that they should not cause you any unwanted distress or discomfort when answering them. However, if at any point during the interview you feel uncomfortable, you can ask the interviewer to stop – you do not have to answer the questions if you don't want to.

Your personal information and results of the questionnaires will be kept confidential and only the researcher and her supervisors will have access to them.

Will any other information about me be passed onto anyone else?

The South London and Maudsley NHS Foundation Trust Confidentiality Policy will be followed at all times throughout this research study. This means that the study will adhere to the rules of the Data Protection Act 1998, and information about you will not be disclosed to anyone else without your consent.

The only exception to this rule is when there are legal requirements for us to disclose information to another professional, for instance if the information you give us reveals that you or someone else may be at risk of suffering significant harm. This particularly applies to children and vulnerable adults. If the researcher identifies that there is a legal requirement for them to disclose information about you to a third party, they will inform you of this.

Will the researcher have access to my psychological therapy records held by the Southwark Psychological Therapies Service?

The researcher will ask you if you are happy to give permission for them to access your personal therapy records to gain information about the number of therapy and Individual Career Management support sessions you have attended over the six month period. They will access your record for this reason only and will not look at any other personal details. They will not access your therapy session notes.

What is informed consent?

Informed consent means that you have been given sufficient information about a study, in a format you understand, to enable you to exercise your right to make an informed decision whether or not to participate in the research study. Consent is voluntary, informed and in writing.

What will happen to the results of the study?

The results of the study may be published in scientific journals, reported at conferences and reported to service managers. We will also provide all those who wish to take part with a report at the end of the study detailing the results we have found. Your identity will never be revealed in any report or publication. The results will be kept anonymous at all times.

Will any data be made available before the end of the study?

Yes, some data from the study may be used in progress reports for the South London and Maudsley NHS Foundation Trust or King's College London. You will not be identifiable from any data used in such progress reports.

How long will my records be kept after the study ends?

We need to keep your data on an electronic file for up to 5 years after the study. This data will be stored securely, protected by a password, and only the researcher will have access to it.

Are there any financial incentives for taking part in this study?

We are not offering any financial payment for taking part in this study because we want to make sure people are participating in the study for the right reasons (i.e.

because they want help to get back to work). However you will be fully reimbursed for any travel expenses you incur when you attend sessions with the researcher.

Contact for Further Information

Details about the Individual Career Management study:

Ms Claire Price, Researcher and Employment & Social Inclusion Manager

South London and Maudsley NHS Foundation Trust
Maudsley Hospital, Main Building
London
SE5 8AZ

Email: claire.price@slam.nhs.uk

Tel: 020 3228 3221

General questions about participating in research:

Ms Jenny Liebscher, Governance and Delivery Manager
Institute of Psychiatry / South London and Maudsley NHS Foundation Trust

P005, R&D Office, De Crespigny Park, Denmark Hill
London
SE5 8AF

Email: jennifer.liebscher@kcl.ac.uk

Tel: 020 7848 0251

Thank you for reading this information sheet.

Appendix 6 – ICM Leaflet

South London and Maudsley **NHS**
NHS Foundation Trust

Individual Career Management

Helping you to achieve personal success in your career

What is Individual Career Management?

Individual Career Management (ICM) is a type of support that can help you move towards your personal career goals.

Career management in today's job market can be difficult. A 'job for life' is rare and jobs are constantly changing.

If you have been out of work for some time, or have had a previous negative experience at work, you may be worried about going back.

You may not know the type of work to look for, or how to find the job you want. Or, you may be worried that your skills or qualifications are out-of-date.

An ICM Career Specialist can help you to think about your career and what your next step might be.





What type of support can I get?

ICM support includes a range of individually tailored options such as:

- Career advice
- Motivational coaching
- Redundancy coaching
- Education & training advice
- Volunteering advice
- CV development
- Help with application forms
- Interview skills advice
- Job search support
- Return to work support
- In-work benefits advice
- Advice about disclosure of health problems to employers

Support is available on a one-to-one basis or through workshops.

What are the benefits of ICM?

ICM is new so we don't yet know the full benefits of this type of support.

However, some patients who have received ICM support have said the following:

"The Career Specialist was very easy to talk to. I was under no pressure, and she helped me to find a course that I enjoy" (Michaela)

"The ICM service has really helped me to gain confidence and to get me back into something that I love doing" (Neil)

"The way that the career support complimented my therapy was crucial in what I have achieved over the last six months" (Abdul)

"Through a mixture of therapy and career support I now have an in-depth awareness of my illness, recognising it and how to manage it at work. I now feel I can stay in work without support" (Vanessa)

ICM is a new type of support that is not usually available through the NHS.

It is currently being offered to patients of the Southwark Psychological Therapies Service as part of a randomised controlled trial.



To find out if you are eligible for the trial, ask your therapist for more information. Or contact:

Claire Price
claire.price@slam.nhs.uk
Tel - 020 3228 3221

South London and Maudsley **NHS**
NHS Foundation Trust

Options available

If you'd like a large print, audio, Braille or a translated version of this leaflet then please ask us.

Useful contact details

SLaM Switchboard: 020 3228 6000
SLaM 24hr Information Line - Advice on how to access SLaM Services: 0800 731 2864
Contact our Patient Advice and Liaison Service (PALS) for help, advice and information:
T: 0800 731 2864
W: www.pals.slam.nhs.uk
E: pals@slam.nhs.uk

Complaints

If you are not happy about something but not sure if you want to make a formal complaint you can speak to a member of staff directly. Alternatively you can contact the PALS Office on freephone 0800 731 2864. If you decide you want to make a formal complaint this can be done by contacting the Complaints Department:

Complaints Department, Maudsley Hospital,
Denmark Hill, London SE5 8AZ
T: (020) 3228 2444/2499
E: complaints@slam.nhs.uk
W: www.slam.nhs.uk

www.tfl.gov.uk/journeyplanner
For the quickest way to plan your journey anywhere in greater London use journey planner:
020 7222 1234 (24hrs)

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