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Executive Summary

- The role that the arts can play in supporting individual mental health and wellbeing has been widely acknowledged, while research in the fields of arts and health has grown in recent decades in the UK and internationally. Despite a growing acceptance of the benefits of engagement in the arts by clinicians, medical staff, carers and patients, sustained research programmes crossing the interface between arts and health remain a contested field. The two sectors do not necessarily share the same values, language, working methods or evaluation techniques. Nevertheless, the landscape is changing, with health providers across the UK realising the benefits of such interventions, thus embedding arts programmes in their service provision.

- In 2007, the NHS launched the Improving Access to Psychological Therapies (IAPT) programme, with the aim of making effective ‘talking-based treatment’ for depression more widely available to patients via their GP. However, in the light of the current economic downturn, it is unlikely that expenditure in this area will be sustained. Meanwhile, the cost of mental health treatment to the economy, estimated at £7.5bn and for the most part due to lost productivity, is likely to increase during the recession. This is attributed to the impact of risk factors for poor mental health and including e.g. loss of accommodation, employment or redundancy; increased anxieties due to financial worries; concerns regarding future prospects. In addition, the high levels of social exclusion associated with mental health needs are of concern.

- Arts and Minds (Cambridgeshire & Peterborough Foundation for the Arts and Mental Health) is a charity based in Cambridge, established in 2007. Its programmes are delivered throughout Cambridgeshire and Peterborough, supporting individuals with mental health issues and/or learning disabilities to live happier, more creative lives through engagement in the arts. Linked to Cambridgeshire and Peterborough Foundation NHS Trust and Cambridgeshire PCT, Arts and Minds has a long-term aspiration that care packages for people with enduring conditions will include payments for arts interventions, as with medication and other clinical interventions.
Delivered by Arts and Minds, Arts on Prescription 2012 is a Public Engagement Foundation (PEF) Case Study, contributing to a burgeoning arts and health evidence base. Generously funded by The Evelyn Trust, with academic support from Anglia Ruskin University and the London School of Economics, this phase of Arts on Prescription provides a unique research model, sitting outside of the conventional social prescribing interventions currently being delivered by health and social services, yet crossing the divide of arts and health, in providing a creative programme in support of adults with mental health issues. Importantly, the present study builds upon the successful Arts on Prescription: Pilot Programme (Cambridgeshire, 2010), including an increased sample size to allow for statistical tests of significance and a randomised waiting list comparison group, enabling a counterfactual analysis.

The present study was conducted in accordance with the ethical principles for conducting research with human participants as set out by the NHS Research Ethics Service and the British Psychological Society (BPS). Ethical approval for the study was sought and gained from the NHS Health Research Authority (NRES Committee North West). NHS Cambridgeshire and Peterborough (Cambridgeshire PCT) acted as sponsor to the study, with respect to the UK’s Department of Health’s Research Governance Framework for Health and Social Care and Good Clinical Practice.

Arts and Minds: Arts on Prescription comprised a 12-week arts programme, delivered by one professional artist, supported by one mental health counsellor. Each weekly workshop lasted two hours and includes a range of visual arts activities (e.g. drawing, collage, stitching, clay and wire work). The aim was to provide a safe and therapeutic environment for all participants, a space where they might feel mutually respected and able to explore their creativity with other like-minded individuals. On completion of the programme, participants were sign-posted to further opportunities and invited to take part in all future Arts and Minds events and activities.
Arts on Prescription 2012 set out to investigate the impacts of a participatory visual arts programme upon the health and wellbeing of 42 adults experiencing mild to moderate anxiety and/or depression. Through a mixed methods design - incorporating valid and reliable psychological measures and a randomised waiting list comparison group - the study sought to determine whether participants experienced any change in self-reported levels of social isolation, anxiety, depression and wellbeing across the duration of the Arts on Prescription programme. Scales for measuring the outcomes of this study were chosen for their reliability, brevity and ease of application. These included the Generalised Anxiety Disorder Assessment, the Patient Health Questionnaire, the Warwick Edinburgh Mental Wellbeing Scale and a measure of social isolation.

Each phase of Arts on Prescription included 12, weekly visual arts workshops delivered to the (intervention) participants by one professional artist and one mental health counsellor. The workshops took place in community settings, across two separate locations (i.e. Cambridge and Cambourne). The arts programme included three additional social gatherings held in diverse cultural venues (e.g. Cambridge Arts Picturehouse, Fitzwilliam Museum, The Junction, Michaelhouse Church and Café Gallery, Kings College Chapel). Waiting list comparison group participants were also invited to these social gatherings, in order to maintain their contact with the programme during their period of ‘waiting’.

The evaluation contained participant elements across two time periods, for each phase of Arts on Prescription (i.e. Phase 1: April to July 2012; Phase 2: September to December 2012). The study used a combination of quantitative and qualitative methods. For the quantitative strand, participants were asked to complete scales measuring aspects of wellbeing, anxiety, depression and social isolation before starting their 12-week workshop programme and again at the end of the 12 weeks. In the qualitative strand, semi-structured interviews were held with participants, again at the beginning and end of the workshops, to explore their expectations and experiences of Arts on Prescription.
This phase of Arts on Prescription resulted in positive outcomes for 78% of participants, through an increase in mental wellbeing and/or a decrease in social isolation, anxiety or depression. With regard to social isolation (SI) results, 44% participants reported a decrease in social isolation between T1 and T2. 61% participants meanwhile reported a decrease in anxiety (GAD-7), and 67% reported a decrease in depression (PHQ-9). Finally, with regard to individual scores for Wellbeing (WEMWBS), 83% reported an increase in wellbeing over the course of the Arts on Prescription programme.

In the qualitative analyses, positive outcomes for participants resulting from their participation in Arts on Prescription were concurrent with those described in a mental health recovery model and included: rebuilding identity, making connections, expanding horizons, developing a sense of purpose and realising the need to create. From the analyses of both datasets, it was evident that the waiting list comparison participants experienced minimum change, yet intervention group participants reported a significant change in levels of social isolation, anxiety, depression and wellbeing across the duration of the Arts on Prescription programme. For the larger majority of participants (78%), self-reported levels of anxiety (GAD-7) and/or depression (PHQ-9) decreased and wellbeing (WEMWBS) increased between T1 and T2.

Participants rated their experience of Arts on Prescription highly. All participants reported that they had enjoyed the programme and would recommend the programme to a friend. 79.4% reported a development in their art skills, through taking part in Arts on Prescription. 67.6% reported an increase in confidence, while 73.5% reported an increase in motivation. Similarly, 73.5% reported feeling more positive about themselves after taking part in the Arts on Prescription programme.
The economic analysis conducted by LSE suggests this model of Arts on Prescription has the scope to be a cost effective intervention in reducing the risk of persistent moderate and/or severe depression. Considered from a health system perspective and compared to low intensity IAPT alone, if a recovery rate of 37.5% is achieved, Arts on Prescription is demonstrated to be cost effective. This may increase costs to service commissioners but improved outcomes will be achieved. If the perspective is broadened so that productivity losses are avoided, the model becomes a cost saving when a 16% recovery rate is achieved. All figures are more favourable when Arts on Prescription is compared to stepped-up intensity interventions. The LSE study suggests that the cost effectiveness of the programme is also likely to improve if the intervention is scaled up.

In the present study, 10 of the total 34 intervention participants made a recovery from depression. If 13 individuals who did not have PHQ-9 scores above 10 at enrolment are excluded from the analysis, then the recovery rate increases to almost 50%. A larger study is therefore recommended by LSE in order to gain an accurate estimate of recovery rates, while testing whether Arts on Prescription might achieve the minimum rates of recovery needed to be cost effective from different perspectives.

The field of visual arts and health research is not yet fully developed, however further collaborations between artists, health professionals and academics will undoubtedly lead to a greater understanding of what constitutes effective practice in a real world setting. More sophisticated methods of research design - incorporating a range of qualitative and quantitative methods - delivered to a large and representative sample, need to be adopted if future studies are to give a clearer indicator of the impacts of Arts on Prescription programmes upon individual mental health and wellbeing. The positive findings from the present study indicate a need for further research, with regard to clinical outcomes and the positive impacts of Arts on Prescription upon individual mental health.
Acknowledgements

Arts and Minds: Arts on Prescription 2012 is a Public Engagement Foundation Case Study. The programme was funded by The Evelyn Trust and Cambridgeshire & Peterborough NHS Foundation Trust. This evaluation was supported by Anglia Ruskin University and the London School of Economics. Arts and Minds would like to thank the Arts on Prescription participants, artists and mental health counsellors who gave their time, skills and resources to the arts programme and the research study. Thanks are also due to the numerous partner organisations who supported the delivery of Arts on Prescription.

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Abstract

The role that the arts can play in supporting individual mental health and wellbeing has been widely acknowledged, while research in the fields of arts and health has grown in recent decades in the UK and internationally. Despite a growing acceptance of the benefits of engagement in the arts by clinicians, medical staff, carers and patients, sustained research programmes crossing the interface between arts and health remain a contested field. The two sectors do not necessarily share the same values, language, working methods or evaluation techniques. However, the landscape is changing, with health providers across the UK realising the benefits of such interventions, thus embedding arts programmes in their service provision.

Delivered by Arts and Minds, Arts on Prescription 2012 is a Public Engagement Foundation (PEF) Case Study, contributing to a burgeoning arts and health evidence base. Generously funded by The Evelyn Trust, with academic support from Anglia Ruskin University and the London School of Economics, this phase of Arts on Prescription provides a unique research model, in that it sits outside of the conventional social prescribing interventions currently being delivered by health and social services. However, it crosses the divide of arts and health, in providing a creative programme in support of adults with mental health issues. Importantly, the present study builds upon the successful Arts on Prescription: Pilot Programme (Cambridgeshire, 2010), including an increased sample size to allow for statistical tests of significance and a randomised waiting list comparison group, enabling a counterfactual analysis.

The main aim of this mixed methods study then, is to explore the impacts of the Arts on Prescription programme upon the mental health and wellbeing of 42 individual adults experiencing mild to moderate anxiety and/or depression. The evaluation suggests highly positive outcomes for participants, in terms of self-reported levels of social isolation, anxiety, depression and wellbeing. This phase of Arts on Prescription resulted in benefits for 78% of participants. Considered alongside the literature reviewed and other, similar Arts on Prescription programmes being delivered across the UK, it would appear that this programme is a cost-effective and positive means of treating patients experiencing the symptoms of anxiety and/or depression.
1 Introduction

1.1 An alternative approach to treatment

The World Health Organisation (WHO) estimates that around 121 million people are affected by mental health issues, while less than 25% of these have access to effective treatments (WHO, 2011). At any one time, around 20% of women and 12.5% of men in England are experiencing common mental health problems such as depression and anxiety (Mental Health Foundation, 2012). Mental health services account for one pound in every seven of global NHS expenditure or 14% of its annual budget, although this is in a context of the NHS increasing expenditure in this area since the publication of the National Service Framework for Mental Health in 1999 (NICE, 2009). The burden of mental health and social exclusion cannot be tackled by health and social services alone. Innovative solutions that do not cost more than current services are therefore required.

Health is the domain of both physical and mental functioning, depending upon the degree to which these functions are in equilibrium with the physical, biological and social environment (Lock, 2001). The arts have been shown to play a pivotal role in achieving this equilibrium, while psychologists in the field of wellbeing assert that the arts are crucial in the maintenance of mental health, with implications for the ways in which individuals operate in and contribute to society (Csikszentmihalyi, 1992; Jamison, 1994; Argyle, 1996; Huppert, Baylis & Keverne, 2005).
A predominant theme in the literature pertaining to arts and mental health is the importance of social networks, friendship, acceptance and opportunities to participate in and enjoy the same range of everyday activities as everyone else (Faulkner & Biddle, 2002; Mental Health Foundation 2005). Action to tackle the social exclusion of people with mental health problems is perceived as fundamental to achieving improved quality of life, which in turn supports recovery and improved clinical outcomes (Social Exclusion Unit 2004). Arts interventions are suggested to provide support for both the patient and the mental health professional (Killick, 2000), creating new approaches to aid the diagnosis and treatment of mental health disorders.

Dialogue between artists, academics and health professionals is perceived as directly benefiting the sector, leading to new approaches for the diagnosis, analysis, prescription and treatment of health issues. Such partnerships are now widely documented, at senior policy level and also within the health and cultural sectors (DCMS, 1999; Mental Health Foundation, 2000; Arts Council England & Department of Health, 2007). These collaborations confirm the arts can contribute directly to the quality of care and health management in a clinical setting, while suggesting they may also play a vital role in the prevention and control of illness.

Over the past 30 years, there have been numerous evaluation studies of community-based projects, aiming to demonstrate the health benefits of participating in the arts. However, a review of these by the Health Development Agency (2000) concluded that it was “impossible to give precise details of improved health, particularly in the light of the fact that so few projects directly provide information on health, or social matters related to health, which are based on formal instruments of measurement.” Several rigorous hospital-based studies involving randomised control trials have since attempted to address these issues, while adding to the knowledge bank of arts and health research. Meta-analyses by Staricoff (2004) and Windsor (2005) suggest that arts and health collaborations may result in quantifiable positive benefits for patients, carers and health professionals, including:

- Reduced stress levels
- Distraction from the medical problem
- Faster recovery rates
- Reduction in patients suffering depression
- Fewer visits to a GP
- Development of new skills by carers and increased confidence
- Managers being aware of the benefits of creativity in a hospital-based setting
- Development of interpersonal skills and social engagement, leading to an enhanced sense of wellbeing.

The single most comprehensive review of arts and health literature was commissioned by Arts Council England (Staricoff, 2004). This review examined the health and medical literature published between 1990 and 2004, in order to explore the relationship between the arts and health care and the effects of the arts on health. The aim of the study was to “strengthen existing anecdotal and qualitative information demonstrating the impact that the arts can have on health” (p.4). The review identified 264 studies across 14 years and although not aiming to be a definitive evidence base for arts in health interventions, it provides the most comprehensive review of the literature to date.

In 2007, the Department of Health and Arts Council England published a joint ‘Prospectus for Arts and Health’ highlighting the positive benefits of arts participation for health and advocating the use of arts in the NHS. Similarly, Cayton (2007) concluded in the ‘Report of the Review of Arts and Health Working Party’ that there was evidence that participation in the arts leads to real and measurable health benefits and the arts should be integral to healthcare provision. A separate Arts Council England report in 2007 suggested that arts participation was important in its impact on the wider determinants of health, such as living environments, educational attainment and social capital. Since then, numerous studies have been published and two journals have emerged: The International Journal for Arts & Health and The Journal of Applied Arts & Health. In addition, the New Economics Foundation (2008) has advocated the value of engagement in the arts and their impacts upon health and wellbeing, as have the World Health Organisation (2009), the Royal College of Psychiatrists (2010) and the British Medical Association (2011) and this is worthy of note.
In addition to an increasing interest in arts and health research over recent years, there is a growing body of evidence to suggest that participation in the visual arts can be beneficial for users of mental health services, particularly in the context of reducing the stigma and social exclusion for individuals experiencing mental health issues (Byrne, 1999; Monti, Peterson, Kunkel, Hauck, Pequignot, Rhodes & Brainard, 2006; Staricoff, Duncan & Wright, 2006; Mittelman & Epstein, 2009; Stickley & Hui, 2012). Staricoff’s (2004) review of the medical literature concluded that the use of visual arts in mental healthcare improved communication between both service users and service providers, stimulated creative skills, enhanced self-esteem and aided self-expression. Other studies concur with these findings, leading to a view that ‘making art’ has personal benefits to self-esteem and expression (Dissanyake, 1995; Creek, 2002; Schmid, 2005), in addition to improving social engagement and social inclusion (Parr, 2006; Mittelman & Epstein, 2009; Stickley & Hui, 2012).
1.2 Arts on Prescription in context

In 2007, the NHS launched the Improving Access to Psychological Therapies (IAPT) programme, with the aim of making effective ‘talking-based treatment’ for depression more widely available to patients via their GP. However, in the light of the current economic downturn, it is unlikely that expenditure in this area will be sustained. Meanwhile, the cost of mental health treatment to the economy, estimated at £7.5bn and for the most part due to lost productivity, is likely to increase during the recession. This is attributed to the impact of risk factors for poor mental health and including e.g. loss of accommodation, employment or redundancy; increased anxieties due to financial worries; concerns regarding future prospects. In addition, the high levels of social exclusion associated with mental health needs are of concern. A negative spiral is found, with those individuals experiencing mental health issues excluded from participation in community life, leading to increased isolation and deteriorating mental health. However, a growing body of evidence suggests that even individuals with the most severe and enduring mental health needs may recover with appropriate support.
Despite a growing acceptance of the benefits of engagement in the arts by clinicians, medical staff, carers and patients, sustained research programmes crossing the interface between arts and health remain a contested field. The two sectors do not necessarily share the same values, language, working methods or evaluation techniques. However, this landscape is changing, with health providers realising the efficacy of such interventions, thus embedding arts programmes in their service provision. One means of delivery is through ‘Arts on Prescription’ programmes, with several examples of effective practice currently taking place across the UK (e.g. Isle of Wight, Milton Keynes, Nottingham, Pendle, Stockport, Liverpool).

While there is a growing body of evidence describing the value of ‘arts in health’, when Bungay and Clift (2010) conducted their review of current practice in the UK, they found little published empirical research that focused specifically on Arts on Prescription. The majority of evaluation studies are to be found in the ‘grey’ literature, consisting of reports on individual projects and/or discussion of issues around implementation. Where empirical work exists however, findings are positive regarding the effects of Arts on Prescription programmes and their impact upon individual mental health and wellbeing (Appendix i: Preliminary Review of Studies).

In 2012, Stickley and Hui completed a qualitative study using a narrative inquiry approach with 16 participants from Arts on Prescription: Nottingham. All participants reported experiencing the programme as a creative and therapeutic environment. It was considered a ‘safe’ place where participants were able to be creative with others, who have shared similar challenges. Participants experienced social, psychological and occupational benefits, although these benefits were not easily separated in the findings - appearing to be closely interrelated - and this is worthy of note.

Further quantitative studies employing reliable and validated measures of health, wellbeing, and social inclusion in non-clinical settings have derived similar results. In 2008, Eades and Ager found that of 59 participants completing a community arts programme of 12 weekly two hour sessions 64% reported lower depression and anxiety, 69% improvements to social health, 64% greater self-confidence and self-esteem, 63% improvements in general health and self esteem, while 74% reported they would include creativity in their long term lifestyle. Also in 2008, Secker, Hacking, Kent, Shenton and Spandler assessed 61 participants at entry to 22 arts
projects across the UK and followed up six months later with a battery of standardised and validated measures of e.g. Empowerment (Individual Empowerment Assessment, Schafer, 2000), mental health needs (Clinical Outcomes in Routine Evaluation, CORE System Group, 1998) and Social Inclusion (Secker, Hacking, Kent, Shenton, & Spandler, 2009). They reported statistically significant improvements in all three measures.

The evaluation of Open Arts introductory arts courses in South Essex (Margrove, South Essex Service User Research Group, Heydinrych & Secker, 2012) included pre- and post questionnaires with intervention and waiting list-control groups to measure changes in psychological wellbeing and social inclusion. Intervention group total mean scores were significantly higher after the Open Arts course than at baseline on both the wellbeing and social inclusion scores, but no significant differences across time were found for the control group. Of the intervention group 96% reported enjoying the course and most of those providing feedback reported gains in confidence (81%) and motivation (88%). The present study builds upon this research experience and the successful pilot phase of ‘Arts on Prescription’ in Cambridgeshire (2010), by providing increased sample sizes to allow for statistical tests of significance and a randomised waiting list comparison group, enabling a counterfactual analysis.
1.3 Arts and Minds: Arts on Prescription

Arts and Minds (Cambridgeshire & Peterborough Foundation for the Arts and Mental Health) is a charity based in Cambridge, established in 2007. Its programmes are delivered throughout Cambridgeshire and Peterborough, supporting individuals with mental health issues and/or learning disabilities to live happier, more creative lives through engagement in the arts. Linked to Cambridgeshire and Peterborough Foundation NHS Trust and Cambridgeshire PCT, Arts and Minds has a long-term aspiration that care packages for people with enduring conditions will include payments for arts interventions, as with medication and other clinical interventions.

Since its inception, Arts and Minds has undertaken more than thirty-five projects, many with in-patients in mental health assessment and care facilities. In Autumn 2009, Arts and Minds received funding of £65,000 from the Transformation Fund via NIACE to deliver a pilot Arts on Prescription project in Cambridgeshire. The programme took place from January to April 2010, with Arts on Prescription sessions for 40 individuals experiencing mild to moderate mental health issues, led by professional artists and supported by mental health workers. This pilot project culminated in an exhibition at the Kettle’s Yard Art Gallery in Cambridge. The resulting evaluation found reductions in levels of anxiety in all but two cases, and reductions in levels of depression in all but one case. Positive written feedback was also received from participants and from their referring agents, although it was not possible to obtain detailed data on service or medication use within the time and resources available.

Delivered by Arts and Minds and funded by The Evelyn Trust, Arts on Prescription 2012 is a Public Engagement Foundation (PEF) Case Study, supported by Anglia Ruskin University and the London School of Economics. This new phase of Arts on Prescription builds upon the successful Arts on Prescription: Pilot Programme, including increased sample sizes to allow for statistical tests of significance and a randomised waiting list comparison group, enabling a counterfactual analysis. The study ran over two time periods, from April to July 2012 and from September to December 2012, in two separate locations: Cambridge itself and the outlying area of Cambourne.
2 The present study

2.1 Study Design

Arts and Minds: Arts on Prescription comprises a 12-week arts programme, delivered by one professional artist, supported by one mental health counsellor. Each weekly workshop lasts two hours and includes a range of visual arts activities (e.g. drawing, collage, stitching, clay and wire work). The aim is to provide a safe and therapeutic environment for all participants, a space where they might feel mutually respected and able to explore their creativity with other like-minded individuals. On completion of the programme, participants are sign-posted to further opportunities and invited to take part in all future Arts and Minds events and activities. Figure 1 (over) describes the aims - and desired outcomes - for those who participate in the Arts on Prescription programme and the genesis for the present study.

The main aim of this evaluation then is to explore the impacts of the Arts on Prescription programme upon the mental health and wellbeing of individual adults experiencing mild to moderate anxiety and/or depression. Through a more rigorous and objective methodology, incorporating valid and reliable psychological measures and a randomised waiting list comparison group, the study aims to investigate the outcomes of the Arts on Prescription programme for the participants, while seeking to answer the following research questions:

- Are there changes in participants’ self-reported levels of anxiety, depression, wellbeing and social isolation across the duration of the programme?
- If so, do individual participants experience similar and/or comparable changes?
- To what factors do individual participants attribute such changes?
- How might this learning inform further development of the Arts on Prescription programme and research in the field more broadly?

With these questions in mind, the following sections describe the recruitment of participants, the research procedure and schedule, the selection of qualitative and quantitative instruments, the methods for data analysis and ethical considerations.
A creative and supportive environment is provided by the Arts on Prescription programme.

Participants experience the social, psychological and occupational benefits of the Arts on Prescription programme.

Levels of social isolation and anxiety and depression are decreased; levels of confidence and wellbeing are increased.

Participants begin to experience internal and external transformation.

Participants move forward and set new goals for the future.
2.2 Participants

The participants were a purposive sample, recruited through GP referrals or self-referrals. Those individuals who self-referred were assessed by the Arts on Prescription mental health counsellors, in order to determine their suitability for the programme. All participants described themselves as experiencing mild to moderate mental health issues, while several came from ‘at risk’ categories. These include having previously been hospitalised for severe mental health reasons; having been homeless or in unstable accommodation; early experience of mistreatment; family problems such as addiction or substance misuse. The participants (N = 42) comprised 12 males and 30 females, ranging in age between 25 and 74 years. The minority (n = 14) of participants were in employment, while the majority (n = 21) had been out of paid employment for several years due to disability and/or mental health issues, including anxiety, depression, bipolar disorder and psychosis. As part of the inclusive nature of the study and as a reciprocal agreement, research participants were offered crèche facilities (for those with young children), travel expenses and small reimbursements for taking part, in the form of shopping vouchers.
2.3 Procedure

This mixed methods investigation contained participant elements across two time periods, for each phase of Arts on Prescription (i.e. Phase 1: April to July 2012; Phase 2: September to December 2012). The study used a combination of quantitative and qualitative methods. For the quantitative strand, participants were asked to complete scales measuring aspects of wellbeing, anxiety, depression and social isolation before starting their 12-week workshop programme (T1) and again at the end of the 12 weeks (T2). In the qualitative strand, semi-structured interviews were held with participants, again at the beginning and end of the workshops, to explore their expectations and experiences of Arts on Prescription. Questionnaires are included in Appendices v, vi, vii and viii, while interview schedules are included in Appendices ix and x. Interviews were audio-recorded and transcribed for analysis.

Following recruitment and assessment procedures for Arts on Prescription: Phase 1 (April to July 2012), a total of 36 participants were randomly allocated to the first intervention group in either Cambridge or Cambourne, or to the waiting list comparison group. Twelve participants were allocated to the Cambridge group, twelve to the Cambourne group and twelve to the Waiting List Comparison group. The latter group were subsequently invited to become a transfer group, participating in the second phase of Arts on Prescription (September to December 2012), alongside 12 newly recruited participants, with equal numbers again allocated to Cambridge and Cambourne.

Each phase of Arts on Prescription included 12, weekly visual arts workshops delivered to the (intervention) participants by one professional artist and one mental health counsellor. The workshops took place in community settings, across two separate locations (i.e. Cambridge and Cambourne). The arts programme included three additional social gatherings held in diverse cultural venues (e.g. Cambridge Arts Picturehouse, Fitzwilliam Museum, The Junction, Michaelhouse Church and Café Gallery, Kings College Chapel). Waiting list comparison group participants were also invited to these social gatherings, in order to maintain their contact with the programme during their period of ‘waiting’.
2.4 Instruments

Scales for measuring the outcomes of this study were chosen for their reliability, brevity and ease of application. These included the Generalised Anxiety Disorder Assessment, the Patient Health Questionnaire, the Warwick Edinburgh Mental Wellbeing Scale and a measure of social isolation. The Generalised Anxiety Disorder Assessment (GAD-7) is a theoretically grounded 7-item instrument focused upon anxiety neurosis (Spitzer, Kroenke, Williams & Löwe, 2006). Though designed primarily as a screening and severity measure for generalised anxiety disorder, the GAD-7 also has moderately good operating characteristics for three other common anxiety disorders: panic disorder, social anxiety disorder, and post-traumatic stress disorder. Participants were asked to indicate the extent to which each statement reflected their experience over the previous two weeks on a four-point scale, i.e. ‘not at all’, ‘several days’, ‘more than half the days’, ‘nearly every day’.

The Patient Health Questionnaire (PHQ-9) is a theoretically grounded 9-item instrument focused upon depression (Kroenke, Spitzer & Williams, 2001). The PHQ-9 is a powerful tool for assisting primary care clinicians in diagnosing depression severity, as well as selecting and monitoring treatment. Sensitivity to change has also been confirmed in the literature. Participants were once again asked to indicate the extent to which each statement reflected their experience over the previous two weeks on a four-point scale, i.e. ‘not at all’, ‘several days’, ‘more than half the days’ and ‘nearly every day’ respectively.

The Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) is a theoretically grounded 14-item instrument that specifically focuses on measuring multiple facets of psychological wellbeing (Tennant et al., 2007). These are closely aligned to Ryff’s (1989; 1995) six theory-guided dimensions of wellbeing and include the following themes:

- Self-acceptance
- The establishment of quality ties to other
- A sense of autonomy in thought and action
- The ability to manage complex environments to suit personal needs and values
- The pursuit of meaningful goals and a sense of purpose in life
- Continued growth and development as a person.
In tests, correlations were moderately high between WEMWBS and other wellbeing measures. Population scores on WEMWBS approximate to a normal distribution with no ceiling or floor effects, making the scale suitable for monitoring mental wellbeing in population samples. Participants in the present study were asked to indicate the extent to which each statement reflected their experience over the previous two weeks on a five-point scale, i.e. ‘none of the time’, ‘rarely’, ‘some of the time’, ‘a lot of the time’, ‘all of the time’.

The research literature suggests that social isolation is a compounding problem for people experiencing mental health problems. An additional four items measuring social isolation were therefore included, derived from a broader measure of social inclusion developed and validated during the national study of arts and mental health (Secker et al., 2006). Participants were asked to indicate how well each statement reflected their experience over the previous month using a four-point scale, i.e. ‘not at all’, ‘not particularly’, ‘yes a little’, ‘yes a lot’.

Demographic data relating to gender, age, ethnicity, education, employment and disability were collected in the T1 questionnaire, while in the T2 questionnaire space was provided for additional comments relating to the programme. Finally, in order to further assess the extent to which changes on the wellbeing, anxiety, depression and social isolation measures might be attributed to Arts on Prescription, six additional questions were included in the T2 questionnaire for intervention group participants only. Participants were asked to indicate how well each statement reflected their experience of taking part and perceived impacts of the programme on their art skills, confidence and motivation using a five-point scale, i.e. ‘strongly disagree’, ‘agree’, ‘neither agree nor disagree’, ‘disagree’, ‘strongly disagree’.
2.5 Data analysis

In the quantitative study, data from the questionnaire were input into SPSS version 21 for Windows to support the quantitative analysis. Initially, a descriptive statistical analysis was completed in order to establish if the assumptions of the following analyses were met, i.e. the distribution of the data was approximately normal, the standard deviations of each condition were approximately equivalent and there were no extreme scores. Kolmogorov-Smirnov test and Shapiro-Wilk test were used to determine whether the sample was of normal distribution, while Levene’s test was used to determine homogeneity of variance. As the data were not evenly distributed or homogenous, non-parametric tests were subsequently selected.

To determine any changes across the duration of the study, Wilcoxon Matched Pairs tests were used to assess differences in mean scores on the baseline and endline measures for social isolation (SI), anxiety (GAD-7), depression (PHQ-9) and wellbeing (WEMWBS). Correlations between individual levels of anxiety, depression, wellbeing and social isolation (and changes in scores) were then assessed using Spearman’s Rank Correlation Coefficient tests. Numbers in participant subgroups such as gender, age, ethnicity, education or employment were too small for analysis. Further details of all tests and results from the quantitative study will be described in the following chapters.

In the qualitative study, audio-recorded interviews were analysed using thematic analysis, a method for identifying, analysing and reporting repeated patterns of meaning (themes) within data (Braun & Clarke, 2006). The transcripts were read and themes identified at the semantic level primarily by inductive analysis, using a ‘bottom up’ approach where the themes are strongly linked to the data itself (Patton, 1990). The aim was to prioritise the lived experience of the participants, while also exploring Ryff’s (1989; 1995) six theory-guided dimensions of wellbeing, i.e. self-acceptance; positive relations with others; autonomy; environmental mastery; purpose in life; personal growth. However the use of an interview schedule, including areas of theoretical interest, meant that the analysis also contained elements of a ‘top down’ deductive approach. Once again, further details of the qualitative analysis and the resulting findings will be described in the following chapters.
2.6 Ethics

The present study was conducted in accordance with the ethical principles for conducting research with human participants as set out by the NHS Research Ethics Service and the British Psychological Society (BPS). Ethical approval for the study was sought and gained from the NHS Health Research Authority (NRES Committee North West). NHS Cambridgeshire and Peterborough (Cambridgeshire PCT) acted as sponsor to the study, with respect to the UK’s Department of Health’s Research Governance Framework for Health and Social Care and Good Clinical Practice.

The study design and methods of delivery aimed to ensure the highest levels of health, safety and comfort for all participants. All personal data was coded and anonymised so that no individual participant could be identified in the reporting. Electronic records were stored on a password-protected computer in password-protected files. Paper records were stored in locked filing facilities. Results are presented anonymously for both groups and individuals, to protect individual participant identities.

Verbal consent was obtained in the first instance through discussion with participants. A written information sheet (Appendix iii) was then forwarded to all potential participants to explain the requirements of the study and allowing time to make an informed decision as to their involvement. This was followed by written consent (Appendix iv), via a letter of agreement. Consent was again obtained prior to the beginning of the investigation, and immediately before any data collection session.

It was anticipated that certain individuals might have found the completion of questionnaires and/or interviews stressful. With this in mind, data collection tools were designed to be both inclusive and accessible. In addition, data collection methods aimed to be both sensitive and flexible to the specific needs of individual participants. At the end of the research, a synopsis of the full written report was circulated to participants. This enabled participants and all other stakeholders an opportunity to discuss the findings and learning outcomes, to shape the project’s development and importantly, to investigate further potential research opportunities.
3 \textbf{Results}

Arts on Prescription: Phase 1 took place from April to July 2012, while Arts on Prescription: Phase 2 took place from September to December 2012. For each delivery phase of the Arts on Prescription programme, baseline questionnaires were delivered to participants prior to the first Arts on Prescription workshop (T1), concurrently with the baseline interviews. Endline questionnaires were meanwhile delivered at the last workshop (T2) and followed by endline interviews, on completion of the Arts on Prescription programme. Findings relating to participation in the programme are presented as follows:

- Participant recruitment
- Description of participant population
- Participant attendance and response to the questionnaires
- Participant ratings of Arts on Prescription programme.

3.1 Participant recruitment

The participants were a purposive sample, recruited through GP referrals or self-referrals. Recruitment procedures were completed from January to March 2012 and again, from June to August 2012 via e.g. Arts and Minds website; e-mail and telephone correspondence with individual GPs and health professionals; distribution of printed leaflets to GP surgeries, clinics and day centres; local radio and newspaper bulletins.

Of those 48 individuals who initially expressed an interest to participate in Arts on Prescription, 12 were recruited through GP referrals, while 36 were self-referrals. Those individuals who self-referred were subsequently assessed by the Arts on Prescription mental health counsellors, in order to determine their suitability for the programme. Of the 48 participants recruited, three participants for Cambourne: Phase 2 decided at a late stage not to take part in the programme due to changes in health and/or social circumstances. At the end of the recruitment process, a total of 42 individuals consented to take part in the Arts on Prescription research study. Of these, 12 were GP referrals and 30 were self-referrals.
3.2 Description of participant population

The sample (N = 42) comprised 12 males and 30 females, ranging in age between 25 and 74 years. This number includes both participants who took part in the arts intervention (n = 34) and waiting list comparison participants (n = 8). As reported in Table 3.1, the majority of participants (n = 35) described themselves as ‘White British’, while a smaller minority described themselves as ‘White Other’ (n = 5), or ‘Black and Minority Ethnic’ (n = 2). The majority of participants (n = 23) had continued into further or higher education (e.g. Fine Art Foundation Course, BA in Fine Art), while seven had ended their full-time education at 16 years. With regard to employment status, the majority of participants (n = 21) were not in paid work, due to disability and/or continuing mental health issues. Eight participants were in paid employment, while six participants were retired. Only one participant was in (full-time) education, studying for a post-graduate degree.

Table 3.1 Demographic Characteristics of Participant Population

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Characteristic</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12</td>
<td>Up to 16 years</td>
<td>7</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>17-18 years</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19-20 years</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Over 21 years</td>
<td>23</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-49</td>
<td>21</td>
<td>Employed</td>
<td>8</td>
</tr>
<tr>
<td>50-74</td>
<td>20</td>
<td>Self-Employed</td>
<td>6</td>
</tr>
<tr>
<td>74+</td>
<td>0</td>
<td>Not in paid work</td>
<td>21</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td>Education (f/t)</td>
<td>1</td>
</tr>
<tr>
<td>White British</td>
<td>35</td>
<td>Retired</td>
<td>6</td>
</tr>
<tr>
<td>White Other</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BME</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.3 **Participant attendance and response to the questionnaires**

Figures 3.1 and 3.2 (over) describe participant attendance for the Cambridge and Cambourne locations during each phase of the Arts on Prescription programme. During Phase 1 (April to July), there were a total of 86 attendances (of a potential total 144) at the Cambridge location and 82 at the Cambourne location. During Phase 2 (September to December 2012), there were a total of 100 attendances (of a potential total 144) at the Cambridge location and 63 at the Cambourne location. Three participants attended the initial sessions only, having decided that the programme was not what they had anticipated. Reasons for absence reported by those who did take part included anxiety or depression; other illness or medical appointments; work, family or holiday commitments.

An analysis of the qualitative data suggests that high attendance and completion rates were due to the commitment of the delivering team and their regular telephone and email contact with absenting participants, from week to week. This communication appeared to build trusting relationships with the participants, in that several clearly felt able to re-attend, even if their absence had spanned several weeks. The pairing of one delivering artist with one mental health counsellor ensured that participants were given an opportunity to discuss individual issues away from the main group, should they become distressed or anxious during an Arts on Prescription session.

Of the total original participants who took part in the Arts on Prescription programme and consented to participate in the research study, 42 individuals completed both baseline and endline questionnaires, with no missing data. This group comprises both intervention (n = 34) and waiting list comparison (n = 8) participants. However, it should be noted that participant questionnaires were often completed only after three follow-up telephone enquiries and two written letters.
Figure 3.1  Participant attendance in Arts on Prescription: Programme

Figure 3.2  Participant attendance in the Arts on Prescription: Programme 2
3.4 Participant ratings of Arts on Prescription

In addition to those scales measuring changes in social isolation, anxiety, depression and wellbeing, six questions were incorporated in the endline questionnaire delivered to Arts on Prescription participants, in order to determine their overall ratings of the programme. Participants were asked to describe their experience of taking part and perceived impacts. Table 3.2 provides summary results for participant ratings of Arts on Prescription.

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have enjoyed the Arts on Prescription programme</td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>I would recommend Arts on Prescription to a friend</td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>29</td>
</tr>
<tr>
<td>My art skills have developed through Arts on Prescription</td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>My confidence has increased through Arts on Prescription</td>
<td>34</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>My motivation has increased through Arts on Prescription</td>
<td>34</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>I feel more positive about myself through Arts on Prescription</td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>11</td>
<td>14</td>
</tr>
</tbody>
</table>

Items are scaled such that high scores reflect a high rating of the Arts on Prescription programme (i.e. 5 = strongly agree; 4 = agree; 3 = neither agree nor disagree; 2 = disagree; 1 = strongly disagree)
As described in Table 3.2, the majority of participants rated their experience of Arts on Prescription highly. All participants reported that they had enjoyed the programme and would recommend the programme to a friend. Twenty-seven (79.4%) reported a development in their art skills, through taking part in Arts on Prescription. Twenty-three (67.6%) reported an increase in confidence, while twenty-five (73.5%) reported an increase in motivation. Similarly, twenty-five (73.5%) also reported feeling more positive about themselves after taking part in the Arts on Prescription programme. It is acknowledged that the distribution of responses is skewed toward the high end of the scale and this, along with the heterogeneous sample, makes it unsuitable for statistical analyses to be carried out with this dataset. However, this does not preclude the examination of individual responses, using the information diagnostically and in order to provide further detail regarding individual attitudes.

Importantly, of those individuals who attributed positive outcomes to the programme, there were close parallels noted in those who reported decreased social isolation, anxiety and depression and increased wellbeing. Similarly, for the small minority of individuals who rated the programme negatively, there were parallels noted between a self-reported increase in anxiety, depression and social isolation with a decrease in wellbeing. This data has therefore provided valuable formative findings regarding the effects of Arts on Prescription on reported levels of social isolation, anxiety, depression and wellbeing.

In sum, from the analyses of the programme data, close parallels are noted between individual participant profiles, yet through asking precisely the same questions with a standard response format, it has reinforced the subsequent analyses of both quantitative and qualitative data as described in the following sections, through its diagnostic approach. Figure 3.3 (over) describes participant flow and data included in both the main and secondary analyses. Important themes have then been analysed, compared and contrasted from each set of data, in order to develop meaning and illuminate the findings.
Figure 3.3: Arts on Prescription participant flow and analyses of data

Arts Programme 1: Apr to Jul 2012
Location: Cambourne
Intervention participants: n = 12

Arts Programme 1: Apr to Jul 2012
Location: Cambridge
Intervention participants: n = 12

Control Group: Apr to Jul 2012
(waiting list comparison group)
Control participants: n = 12

Included in main statistical analysis
Intervention participants: n = 18
(missing data from 6 participants)

Included in main statistical analysis
Control participants: n = 8
(missing data from 4 participants)

Arts Programme 2: Sep to Dec 2012
Location: Cambourne
Intervention participants: n = 12
(including 4 transfer participants)

Arts Programme 2: Sep to Dec 2012
Location: Cambridge
Intervention participants: n = 12
(including 4 transfer participants)

Transfer Group: Sep to Dec 2012
(from waiting list comparison group)
Transfer participants: n = 8

Not included in statistical analysis
Intervention participants: n = 16

Included in secondary statistical analysis
Transfer participants: n = 8
4 Quantitative results

As previously described, the statistical analyses include data from intervention, waiting list comparison and transfer participants who completed both stages of the research study. Quantitative results are therefore reported in the following order:

- Analyses of social isolation, anxiety, depression and wellbeing measures
- Individual changes in social isolation, anxiety, depression and wellbeing
- Secondary statistical analyses with transfer group data.

4.1 Analyses of social isolation, anxiety, depression and wellbeing measures

This evaluation study aims to determine whether there were changes in participants’ reported levels of anxiety, depression, wellbeing and social isolation across the duration of the Arts on Prescription programme. Paired samples t-tests were used to assess differences in intervention participants’ mean scores on the baseline and endline measures for social isolation, anxiety, depression and wellbeing (these scores were normally distributed according to histograms, skewness and kurtosis statistics, and box plots). However, control group participants’ wellbeing scores were not normally distributed; therefore Wilcoxon matched pairs tests were carried out for the control group score comparisons.

In the intervention group, mean scores for social isolation (SI) remained the same between T1 (M=5.33, SD=2.89) and T2 (M=5.33, SD=3.61) and therefore there was not a statistically significant difference between these scores: \( t(17)=.000, p=1.000 \). The WEMBWBS mean score increased (+ 5.28) between T1 (M = 26.11, SD=7.43) and T2 (M = 31.39, SD=9.61), which reached statistical significance: \( t(17)=-2.815, p=.012 \). Additionally, anxiety scores significantly decreased (– 2.8) between T1 (M=11.39, SD=5.45) and T2 (M=8.56, SD=5.6): \( t(17)=2.541, p=.021 \). There was a trend for the same pattern with depression scores, but this reduction (– 1.78) did not reach statistical significance: \( t(17)=1.05, p=.308 \) (see Table 4.1 for intervention group comparisons). In the waiting list comparison group, there were no significant differences between T1 and T2 scores (see Table 4.1 for waiting list group comparisons).
Table 4.1 Questionnaire scores for intervention and waiting list comparison groups (T1 and T2)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Intervention Group</th>
<th>Waiting List Comparison Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1 Mean (SD)</td>
<td>T2 Mean (SD)</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>t</td>
</tr>
<tr>
<td>Social Isolation (SI)</td>
<td>5.33 (2.89)</td>
<td>5.33 (3.61)</td>
</tr>
<tr>
<td>Anxiety (GAD-7)</td>
<td>11.39 (5.45)</td>
<td>8.56 (5.6)</td>
</tr>
<tr>
<td>Depression (PHQ-9)</td>
<td>13.22 (6.02)</td>
<td>11.44 (6.31)</td>
</tr>
<tr>
<td>Wellbeing (WEMWBS)</td>
<td>26.11 (7.43)</td>
<td>31.39 (9.61)</td>
</tr>
</tbody>
</table>

*p < .05
In addition to investigating any potential change in self-reported levels of social isolation, anxiety, depression and wellbeing across the duration of the Arts on Prescription programme, the present study sought to determine whether there were any significant relationships between scores on the measures at each time point. In order to discover correlations between levels of anxiety, depression, wellbeing and social isolation, Pearson’s correlations were carried out for the intervention group (as the questionnaire data were normally distributed) and Spearman’s Rank Correlation Coefficient tests were carried out for the waiting list comparison group (as the questionnaire data were non-normally distributed).

Table 4.2 (over) provides summary statistics for correlations between measures at T1 and T2 respectively. In the waiting list comparison group, one significant relationship was noted at the endline stage (T2), between depression and wellbeing ($r_s = -0.726, p < .05$). In the intervention group, there was a significant relationship between depression and wellbeing, ($r = -0.784, p < .001$) at the baseline stage (T1). Additionally, there was a significant relationship between anxiety and wellbeing ($r = -0.512, p < .05$) and between depression and social isolation ($r = -0.485, p < .05$) at T1. Once again, at the endline stage (T2), there was a significant relationship between depression and wellbeing ($r = -0.661, p < .01$), anxiety and wellbeing ($r = -0.757, p < .001$), depression and social isolation ($r = -0.471, p < .05$) and between anxiety and social isolation ($r = -0.638, p < .01$).

Relationships between anxiety and/or depression and wellbeing, and also anxiety and/or depression and social isolation are noted to be negative correlations (i.e. as anxiety and/or depression ratings decrease, so wellbeing ratings increase; likewise, as anxiety and/or depression ratings increase, so social isolation ratings decrease). For the intervention group, the relationship between less anxiety and greater wellbeing becomes stronger at T2. Figures 4.4 and 4.5 meanwhile describe those correlations between anxiety, depression, social isolation and wellbeing measures noted to be of statistical significance at T1 and T2.
### Table 4.2: Correlations between Anxiety, Depression and Wellbeing Measures

<table>
<thead>
<tr>
<th>Measures</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Intervention Group</td>
<td>Waiting List Comparison Group</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
<td>T1</td>
<td>T2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures</td>
<td>Pearson Correlation</td>
<td>p</td>
<td>Pearson Correlation</td>
<td>p</td>
<td>Spearman’s Correlation</td>
<td>p</td>
<td>Spearman’s Correlation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety (GAD-7) and Wellbeing (WEMWBS)</td>
<td>-.512</td>
<td>.03*</td>
<td>-.757</td>
<td>.000*</td>
<td>-.261</td>
<td>.533</td>
<td>-.634</td>
</tr>
<tr>
<td>Depression (PHQ-9) and Wellbeing (WEMWBS)</td>
<td>-.784</td>
<td>.000*</td>
<td>-.661</td>
<td>.003*</td>
<td>-.503</td>
<td>.204</td>
<td>-.726</td>
</tr>
<tr>
<td>Anxiety (GAD-7) and Social Isolation (SI)</td>
<td>-.225</td>
<td>.368</td>
<td>-.638</td>
<td>.004*</td>
<td>-.175</td>
<td>.679</td>
<td>-.073</td>
</tr>
<tr>
<td>Depression (PHQ-9) and Social Isolation (SI)</td>
<td>-.485</td>
<td>.041*</td>
<td>-.471</td>
<td>.048*</td>
<td>-.277</td>
<td>.506</td>
<td>-.019</td>
</tr>
</tbody>
</table>

* *p < .05
Figure 4.4 Correlations between Anxiety and Wellbeing Measures at T1 and T2

Intervention Group (T1)

Intervention Group (T2)

Figure 4.5 Correlations between Depression and Wellbeing Measures at T1 and T2

Intervention Group (T1)

Intervention Group (T2)

Figure 4.6 Correlations between Depression and Social Isolation Measures at T1 and T2

Intervention Group (T1)

Intervention Group (T2)
4.2 Individual participant changes in social isolation, anxiety, depression and wellbeing

In addition to investigating any change in reported levels of social isolation, anxiety, depression and wellbeing across the intervention group, the present study sought to discover whether individual participants experienced similar and/or comparable changes. When investigating individual raw scores, it is evident that for some participants at least, there had been greater levels of change (i.e. increase or decrease) in their levels of social isolation, anxiety, depression and/or wellbeing. Figures 4.6, 4.7, 4.8, and 4.9 (over), provide a descriptive analysis of individual (intervention group) participant scores for social isolation (SI), anxiety (GAD-7), depression (PHQ-9) and wellbeing (WEMWBS) at T1 and T2 respectively. The wide variation in individual scores is immediately apparent, but also the potential effects of the inclusion of one or two extreme cases across the sample.

With regard to individual scores for social isolation (SI), eight participants (44%) reported an decrease in social isolation between T1 and T2. Five participants (28%) meanwhile reported an increase in social isolation and five participants (28%) reported no change. With regard to individual scores for Anxiety (GAD-7), eleven participants (61%) reported a decrease in anxiety between T1 and T2, while seven participants (39%) meanwhile reported an increase. With regard to individual scores for Depression (PHQ-9), twelve participants (67%) reported a decrease in depression between T1 and T2. Four participants (22%) meanwhile reported an increase and two participants (11%) reported no change. Finally, with regard to individual scores for Wellbeing (WEMWBS), fifteen participants (83%) reported an increase in wellbeing between T1 and T2, while three participants (17%) reported a decrease.

A decrease in social isolation, anxiety and depression coincided with an increase in wellbeing for one individual (6%) across the study, while a decrease in both anxiety and depression coincided with an increase in wellbeing for seven individuals (39%). Decreased levels of depression and increased levels of wellbeing are reported by four individuals (22%), while decreased levels of anxiety and increased levels in wellbeing are reported for two individuals (11%). The remaining four participants (22%) report mixed results across the four measures. The majority of participants (78%) therefore reported a positive change between T1 and T2, either through a decrease in levels of anxiety, depression or social isolation and/or an increase in levels of wellbeing.
Figure 4.6  Intervention Group Participant Scores (T1 and T2) for Social Isolation Measures

Arts on Prescription: Intervention Group Participants

Figure 4.7  Intervention Group Participant Scores (T1 and T2) for Anxiety Measures

Arts on Prescription: Intervention Group Participants
Figure 4.8  Intervention Group Participant Scores (T1 and T2) for Depression Measures

![Depression Scores Graph](image)

Figure 4.9  Intervention Group Participant Scores (T1 and T2) for Wellbeing Measures

![Wellbeing Scores Graph](image)
4.3 Secondary statistical analyses with transfer group data

For those waiting list comparison group participants who subsequently became the ‘transfer group’ participants (n = 8), baseline and endline questionnaires were delivered at T1 and T2. T2 questionnaire scores were non-normally distributed (according to skewness and kurtosis statistics and Kolmogorov Smirnov tests of normality) therefore Wilcoxon Matched Pairs tests were used to assess differences in mean scores on the baseline and endline measures for social isolation, anxiety, depression and wellbeing. Table 4.4 provides summary statistics for measures of social isolation (SI), anxiety (GAD-7), depression (PHQ-9) and wellbeing (WEMWBS) for transfer group participants at T1 and T2 respectively. Mean scores for SI increased between T1 (M = 4.88) and T2 (M = 5.00). There was a decrease in mean scores for GAD-7 (- 1.88) and PHQ-9 (- 3.12), while there was an increase in mean scores for WEMWBS (+ 2.88). Although these are noted to be positive changes across the three scales of anxiety, depression and wellbeing, none of these results reached statistical significance (see Table 4.4).

Table 4.4 Comparisons between baseline and endline questionnaire scores

<table>
<thead>
<tr>
<th>Measure</th>
<th>T1 Mean (SD)</th>
<th>T2 Mean (SD)</th>
<th>n</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Inclusion (SI)</td>
<td>4.88 (3.87)</td>
<td>5.00 (3.12)</td>
<td>8</td>
<td>.272</td>
<td>.785</td>
</tr>
<tr>
<td>Anxiety (GAD-7)</td>
<td>12.63 (5.78)</td>
<td>10.75 (5.65)</td>
<td>8</td>
<td>1.355</td>
<td>.176</td>
</tr>
<tr>
<td>Depression (PHQ-9)</td>
<td>13.75 (6.65)</td>
<td>10.63 (6.44)</td>
<td>8</td>
<td>1.527</td>
<td>.127</td>
</tr>
<tr>
<td>Wellbeing (WEMWBS)</td>
<td>22.00 (9.10)</td>
<td>24.88 (7.94)</td>
<td>8</td>
<td>1.355</td>
<td>.176</td>
</tr>
</tbody>
</table>
In addition to investigating any potential change in self-reported levels of social isolation, anxiety, depression and wellbeing across the duration of the Arts on Prescription programme, the present study sought to determine whether the quantitative data revealed any significant relationships between scores on the measures at each time point. In order to discover correlations between levels of anxiety, depression, wellbeing and social isolation, Spearman’s Rank Correlation Coefficient tests were subsequently applied. Table 4.5 provides summary statistics for correlations between measures at T1 and T2 respectively. In the transfer group, one significant relationship was noted at the baseline stage (T1), between depression and wellbeing ($r_s = -.813, p < .05$). No other tests reached statistical significance.

Table 4.5 Correlations between Anxiety, Depression and Wellbeing Measures

<table>
<thead>
<tr>
<th>Measures</th>
<th>T1</th>
<th></th>
<th>T2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spearman’s Correlation</td>
<td>$p$</td>
<td>Spearman’s Correlation</td>
<td>$p$</td>
</tr>
<tr>
<td>Anxiety (GAD-7) and Wellbeing (WEMWBS)</td>
<td>-.216</td>
<td>.608</td>
<td>-.560</td>
<td>.149</td>
</tr>
<tr>
<td>Depression (PHQ-9) and Wellbeing (WEMWBS)</td>
<td>-.813</td>
<td>.014*</td>
<td>-.611</td>
<td>.107</td>
</tr>
<tr>
<td>Anxiety (GAD-7) and Social Isolation (SI)</td>
<td>.335</td>
<td>.417</td>
<td>.417</td>
<td>.548</td>
</tr>
<tr>
<td>Depression (PHQ-9) and Social Isolation (SI)</td>
<td>-.373</td>
<td>.362</td>
<td>-.110</td>
<td>.795</td>
</tr>
</tbody>
</table>

*p<.05
A grounded approach was adopted for the analysis of qualitative data, which allowed themes to emerge through an inductive process, rather than testing for a hypothesis or looking for predetermined theories. The aim was to prioritise the lived experience of the participants, while also exploring Ryff’s (1989; 1995) six dimensions of wellbeing, i.e. self-acceptance; positive relations with others; autonomy; environmental mastery; purpose in life; personal growth. However the use of an interview schedule, including areas of theoretical interest and reference to existing research evidence, meant that the analysis also contained elements of a deductive approach.

The preliminary coding process involved reading and re-reading the data, then labelling quotations and sections according to their content. This open coding was followed by thematic analysis to identify key themes and/or link themes together. The second stage of analysis grouped the material into broader topics, identifying overarching themes. Thematic analysis of the data yielded five distinct overarching themes with 20 sub-themes. The criteria for identifying themes were according to their prevalence across the interview data and relevance to the main research questions (i.e. changes in anxiety, depression, wellbeing and social isolation; similar and/or comparable changes amongst participants; factors which might be attributed to participating in Arts on Prescription). The subsequent five overarching themes resulting from the thematic analysis were then considered in relation to the six aforementioned dimensions of wellbeing, in order to investigate any potential relationships between the two. This further stage of analysis suggested that participant descriptions of their engagement in the Arts on Prescription programme - with its subsequent positive and/or negative impacts - might be aligned to certain dimensions of wellbeing, as described in Table 5.1 and further explored in the analysis and discussion. Results from the qualitative analysis are therefore presented in relation to the following overarching themes:

- Rebuilding identity
- Making connections
- Expanding horizons
- A sense of purpose
- The need to create.
<table>
<thead>
<tr>
<th>Overarching Themes</th>
<th>Preliminary Themes</th>
<th>Examples from interview data</th>
<th>Wellbeing Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebuilding identity</td>
<td>Permission to be one’s self</td>
<td>“With the group, I was just there, not to compare myself with them or to judge anyone, just to be there for me. I was just present and I would make and listen to people.”</td>
<td>Self-acceptance</td>
</tr>
<tr>
<td></td>
<td>Self-belief and self-confidence</td>
<td>“I’d like to do something, I mean, I still feel cautious about it, but, I’d like to try joining a class, or a group, you know, doing some kind of creative activity. Trying to get more into that, develop things, but definitely take forward what I’ve learned.”</td>
<td>Autonomy</td>
</tr>
<tr>
<td></td>
<td>Achievement, pride and satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Making decisions about the programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making connections</td>
<td>Feeling isolated or lonely</td>
<td>“I used to live in London and I really missed it, but I feel much better now! I am really enjoying my time here. The teacher, the students, everyone. I’ve enjoyed everything about it, just everything!”</td>
<td>Positive relations with others</td>
</tr>
<tr>
<td></td>
<td>Making friendships and new relationships</td>
<td>“I’ve really liked getting to know new friends, while getting on with something that I probably wouldn’t do at home because I’d be too distracted, or feel too fed up.”</td>
<td>Environmental mastery</td>
</tr>
<tr>
<td></td>
<td>Decreased social isolation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased confidence in relating to others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanding horizons</td>
<td>Exploring the unknown</td>
<td>“Then there are lots of different things to try, which I’ve had a go at. I enjoyed doing the wire and the clay, and the sewing too. Sewing the paper, that was quite interesting.”</td>
<td>Environmental mastery</td>
</tr>
<tr>
<td></td>
<td>Learning new skills and techniques</td>
<td>“It’s prompted other things at home. I’ve been doing other things and I’ve got some new ideas. I’d really like to do a large project for the garden.”</td>
<td>Personal growth</td>
</tr>
<tr>
<td></td>
<td>Excitement and stimulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increasing opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A sense of purpose</td>
<td>Reduced inactivity</td>
<td>“It’s started to give me lots of new ideas, it’s good. It’s nice, it keeps me occupied. It makes me look at things in a different way.”</td>
<td>Purpose in life</td>
</tr>
<tr>
<td></td>
<td>Inspiration, meaning and hope</td>
<td>“The film screening event made me think about getting more involved. I’d like to maybe help in the delivery of sessions, something like that. You know, helping with charities, something like that.”</td>
<td>Personal growth</td>
</tr>
<tr>
<td></td>
<td>Engagement with other aspects of life</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Making plans for the future</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The need to create</td>
<td>Sensory perception and awareness</td>
<td>“For me, it’s been good because it’s taken me away completely from my area, and away from the difficulties in my life at the moment.”</td>
<td>Personal growth</td>
</tr>
<tr>
<td></td>
<td>A chance to play and be free</td>
<td>“You don’t have to make it look like an object or a person, it’s just free-wheeling! Completely unlike anything I’ve ever done before.”</td>
<td>Autonomy</td>
</tr>
</tbody>
</table>
5.1 Rebuilding identity

Throughout the interview data, participants related Arts on Prescription to supporting them in rediscovering and rebuilding their identity, beyond that of being identified as having mental health issues, lacking external respect and/or being long-term unemployed. Firstly, in being given the opportunity to ‘play’ and ‘experiment’ with a range of visual arts-based skills and techniques (e.g. wire and clay work, stitching with paper, large-scale drawings) participants reported feeling ‘liberated’ and ‘energised’ by their experience, describing the programme as ‘freeing’ and them from their own negative perception of self.

“Because I did get enjoyment out of it, even though I might be feeling quite rubbish, for lack of a better word, so I think it helped my confidence. I’m a lot more confident now in showing other people my artwork, whereas before, I just kind of, kept it hidden. I’m a lot more willing now to share what I’ve done with my family and friends. It feels like it’s opening up a different side to me.”
Secondly, in being treated with respect by the Arts on Prescription project team and their peers, participants began to accept themselves as creative individuals. Building a new and/or renewed artistic identity for the presentation to others was also seen as important, as was the acceptance of individual differences and the inclusive nature of the group.

“Also, it didn’t matter what mood I was in. You know, because nobody, because you know like sometimes, um, people aren’t sure. I’ve gone to classes, where, I don’t know, people sometimes, they think you’re a bit odd, or you’re a bit eccentric or, I don’t know. Some people don’t seem to know how to take me, but I didn’t have to worry about that in the group. It was really inclusive.”

Thirdly, on completion of the Arts on Prescription programme, participants acknowledged a new or alternative sense of themselves as valued by family members, friends and society in general, challenging an identity as defined by their mental ill-health. As several participants were long-term service users with a range of complex mental health issues, their identities had to an extent been compromised by their mental health experiences and/or treatment.

“My partner has noticed the world of difference in me. I’ve suffered from depression for a long time, nothing but crying, I hated that. I hated it, I detested it! I don’t do that now. Very occasionally, but not like before, just very occasionally. It still comes over me, without me being able to stop it, but then my attitude, I’m not wrapped up in myself, as he puts it. I am helping myself, he says.”

Through participation in Arts on Prescription, they were encouraged to revisit their needs as creative individuals, making these more integrated with their sense of self. Since building identity might in part be seen as a social process, involving the internalisation of the perceptions of others, this process was especially associated with the opportunity to make, discuss and share their work. In addition, this had subsequent impacts on combating exclusion and for some participants, was implicated in helping to promote a positive sense of self.
5.2 Making connections

There was evidence throughout the interview data that Arts on Prescription enabled participants to connect with others, stimulating further social interaction outside of the programme, which in turn decreased social isolation and increased wellbeing. It was difficult to discern the extent to which these outcomes might be specifically attributed to ‘making art’ rather than taking part in the programme, since these elements appear to be closely interrelated. However, it was apparent that participants used making art as a way to facilitate communication, since it was often through ‘creating together’ that social interaction occurred.

“I don’t tend to go out very much alone, so I tend to see the same people over and over again. It’s nice to be doing something different, with different people. It’s a really good, social activity. Everyone feels supportive of each other. When I came back from having my assessment, people were asking me how I got on, so that felt nice. Just made me feel a bit better about the whole thing.”

Participants spoke of the value of Arts on Prescription in providing a ‘supportive’ and ‘non-competitive’ environment where they could practice or develop art skills at their own pace. They frequently contrasted the ‘safe’ and ‘non-judgmental’ environment provided by Arts on Prescription with their - previous or continuing - learning experiences in other settings.

“I don’t have a lot of confidence, so in the past, when I’ve done something, you know, if somebody laughed at me, or maybe said, that’s weird, what is it? That always put me off, so I thought, oh well, I’m obviously no good! Packed it away and thought, I won’t do it anymore. Whereas now, I think, well I like it and that’s all that matters. So yes, it has really helped in that respect.”

A quiet and inclusive working environment, small group numbers, being praised and being able to work in their own individual style, were all described as being important factors. In addition, participants described the programme leaders (i.e. the delivering artists and mental health counsellors) as playing a central role in creating this sense of safety and inclusion.
“I’ve enjoyed the course very much and meeting the people. The staff are really lovely, very nice. Very helpful and considerate. They look after us very well and always make everyone feel welcome. They’re always very inclusive to everybody, which is good. The group is lovely. We all get on well together. Quite a lot of people walk out together afterwards, which is nice to see.”

A growing sense of self-worth encouraged by the programme meant that participants began to feel more confident about developing relationships with each other. Participants reported establishing friendships not only within Arts on Prescription, but also building new relationships outside of the programme. This was made possible through a shared interest in learning and/or developing their artwork. Importantly, participants repeatedly described how they were then prompted to explore these developing creative and social skills, in diverse contexts and outside of Arts on Prescription.

5.3 Expanding horizons

When describing Arts on Prescription and its subsequent benefits, participants explained how the programme had ‘expanded their horizons’, encouraging many to widen their aspirations for the future. This process appeared to be composed of three stages. Firstly, participants were encouraged to ‘explore the unknown’ through their regular attendance during the weekly workshop programme and special events, making their way independently to new and diverse spaces, meeting a group of new people, exploring new arts-based skills and sharing their resulting artworks.

“IT was really hard at the beginning because it’s dodgy the first time, it’s all new, a new place and new people, you’ve got to find it and settle in. But then the next time it’s easier, it’s the routine. Then you see people, you talk to people and gradually you get to know them. That’s a good thing! Just need to see where it all goes now!”
Secondly and as described previously, the Arts on Prescription programme provided opportunities for participants to broaden their social networks, resulting in the development of new relationships with like-minded individuals, thereby lessening feelings of exclusion and isolation. For certain participants, this aspect was perceived to be a key factor in facilitating subsequent shifts in confidence and self-esteem.

“For me, it took more time for any change to happen. I’ve really started to see the benefits in the last six months. I made some good friendships in the first phase, which have pretty much carried on. That has really helped me a lot. I don’t really meet many new people, there are no courses to go on, no day centres, so this has really helped me.”

Finally, participants were invited to share their artwork at the end of each session and also at the final ‘sharing exhibitions’, attended by friends and family members. When discussing this part of the programme, participants repeatedly attested to being placed ‘outside of their comfort zone’, often resulting in increased levels of anxiety. However, on conquering these feelings of nervousness, participants acknowledged they felt ‘happy’, ‘proud’ and ‘energised’ at realising their achievements, even if external praise was at first difficult to accept.

“To go home and have my husband and my sons go, wow! That was nice! My youngest son is very artistic, he’s very good actually and my husband paints as well, actually, beautiful pictures. I’d just never thought about it. So for them to sort of say, you know, what I’d done was, they liked it, was quite something! Over the past ten years, I’ve kind of shut off my emotions, as a way of dealing with stuff, so having that praise was quite difficult for me.”

Participants described how this process of external validation had brought about a sense of internal transformation, encouraging them to think differently about themselves and their future goals. Several participants reported having an ambition to complete projects at home, seek further creative courses, investigate (voluntary or paid) employment opportunities and even begin exhibiting their artwork to a wider public audience.
5.4 A sense of purpose

Arts on Prescription participants appreciated the wide range of activities provided by the programme, encouraging them to explore new skills, subsequently leading to an increased sense of purpose. While it was often the diversity of arts-based activities that was perceived as valuable, there was also an element that stemmed from the sensory nature of making art. This seemed to enhance participants’ awareness of the therapeutic value of time spent ‘making’.

“It felt like having medication, but not, if you get my meaning, over a period of time. Using my hands with the making, it seemed to relax me. It helped me overcome, like, mental blocks. Things I’d been thinking, I can’t do, because that’s too difficult or I’m not capable of it. I think it has definitely been of help there. I’m much more willing to sort of say, well, I’ll just roll up my sleeves and get on with it.”

There was evidence that exploring a range of arts-based skills enabled participants to connect with their latent abilities. This seemed particularly important for those participants who had little or no experience of making art before joining Arts on Prescription, encouraging them to connect with potential they had not previously explored. This resulted in feelings of pride and
satisfaction, thus improving wellbeing. In turn, this challenged negative images of self, encouraging a sense of purpose. In addition, participants suggested that the Arts on Prescription programme had helped lessen anxiety and/or depression and increase feelings of wellbeing, by enabling them to develop a broader perspective.

“What I was finding, was that after a couple of hours at Arts on Prescription, I was very relaxed and very calm and very positive about things. I also had the feeling of satisfaction, that most of the time, I managed to turn out something that actually I wasn’t embarrassed about. I think that it had a wholly positive impact upon my mental health.”

Several participants described how connecting with their abilities had challenged negative thoughts they held regarding being ‘useless’ or ‘incapable’, which often resulted from the stigma attached to having long-term mental health issues. Instead, it focused their attention upon the needs of others, thereby looking beyond themselves and the cycle of negative introspective thinking.

5.5 The need to create

Significantly, a number of participants made explicit links between increased motivation in making art and decreased anxiety and depression. Being able to concentrate on something absorbing enhanced their ability to relax and provided them with a way of dealing with - or a distraction from - their mental health issues. For some this had a direct impact in terms of combating feelings of hopelessness or isolation.
“I know my limits now. When I can’t do it, but when I can, I try hard working, more times than I did before. I sort of, get things out from within me. It’s good, it’s been very, very good for me. Before, I used to feel stuck in a rut, or depressed, so it has taught me something very, very valuable. I’ll be using that all of the time now. It’s taught me that I can weather that storm.”

In being encouraged to express themselves in their own very individual ways, participants began to appreciate the art they created and the person (i.e. themselves) who created it. The centrality of this process for Arts on Prescription participants was related to the high levels of emotional support offered by the programme leaders (i.e. the delivering artists and mental health counsellors) and the flexible environment.

“I enjoyed doing the wire, you know, making things with wire, then the drawing that I did, it gave me so much confidence. I never, ever, in a million years, did I think I would be able to draw, never. That little sketchbook that we were given, it was just enough for me to start scribbling on my own, in my own time. Then I noticed that my scribbles started to change. My doodles started to change, then I started to change!”

For many participants, self-acceptance was closely bound up with their development as a creative individual. Taking part in the Arts on Prescription programme therefore encouraged them to acknowledge that making art was a necessary part of their being.

“I think it’s about being yourself. Just to let yourself create something. It’s like a form of mindfulness or meditation, to do something good, or something you’re pleased with, but you allow yourself to be in a state where you’re doing it and you’re not judging it. You’re not evaluating it, you’re not comparing it, not thinking about other things. You just make something that’s a valid expression of yourself and your abilities.”
6 Discussion

The present study set out to investigate the impacts of an Arts on Prescription programme upon the mental health and wellbeing of 34 participants. Through a mixed methods design, it sought to determine whether participants reported any change in levels of social isolation, anxiety, depression and wellbeing across the duration of the Arts on Prescription programme and if so, whether those changes were similar and/or comparable for individuals. This chapter aims to examine findings resulting from the analyses of quantitative and qualitative data, relevant to the research questions of the present study, while considering both methodological issues and learning outcomes for this and future, similar investigations.

This chapter is therefore presented in the following order:

- Findings from the present study
- Limitations of the present study
- Learning related to the intervention
- Learning for future research.
6.1 Findings from the present study

From the previous analyses of both datasets, it is evident that although the waiting list comparison participants experienced minimum change, intervention group participants reported a significant change in levels of social isolation, anxiety, depression and wellbeing across the duration of the Arts on Prescription programme. For the majority of these participants (78%), self-reported levels of anxiety (GAD-7) and/or depression (PHQ-9) decreased and wellbeing (WEMWBS) increased between T1 and T2. Results pertaining to social isolation (SI) were mixed across the sample for 11% of participants, while a similarly small minority of participants (11%) reported negative outcomes across each of the four measures.

For those participants reporting positive change, there appear to be close parallels between the outcomes data and their individual rating of the Arts on Prescription programme. Likewise, for those few participants (11%) reporting negative change, their experience of the programme was rated negatively. The qualitative data meanwhile reveals those factors attributed to supporting positive outcomes (i.e. rebuilding identity; making connections; expanding horizons; a sense of purpose; the need to create), perceived to be closely aligned to Ryff’s (1989; 1995) six theory-guided dimensions of wellbeing (i.e. self-acceptance; the establishment of quality ties to other; a sense of autonomy in thought and action; the ability to manage complex environments to suit personal needs and values; the pursuit of meaningful goals and a sense of purpose in life; continued growth and development as a person).
Cook and Campbell (1979) argue that three conditions (i.e. covariation; temporal precedence; no plausible alternative explanation) are required to prove causation. A recurring challenge for studies of psychological wellbeing and their validity concerns their sensitivity to minor life-changing events. Temporal circumstances are seen to have a significant impact on the level of wellbeing reported by participants (Schwarz & Strack, 1999). One question included in the Anglia Ruskin/UCLAN national research study (Secker, Hacking, Spandler, Kent & Shenton, 2007) investigated examples of recent new stress in participants’ lives. Improvements in empowerment and mental health were greater for those reporting no recent new stress in their lives at follow up than for participants who reported a new stress.

In addition to those issues discussed in the literature, such effects are of consideration in the present study and wellbeing data in general (Bertrand & Mullainathan, 2001). Even when correlations between variables are identified, the problem of proving causality remains. Nonetheless, it is evident that the majority of participants experienced positive change during the course of the present study, reporting decreased levels of anxiety and depression correlating with increased levels of wellbeing.

The analysis pertaining to individual baseline and endline levels of anxiety and depression is also of clinical relevance. Eight of eighteen intervention group participants (44%) reported high levels of anxiety at T1, beyond the cut off point for referral, whereas self-reported levels of anxiety had decreased substantially at T2 for twelve of the total eighteen participants (66%), to below the cut off point for referral. Meanwhile, eleven of eighteen participants (61%) reported high levels of depression at T1, beyond the cut off point for referral, whereas levels of depression had decreased substantially at T2 for nine of eighteen participants (50%), again to below the cut off point for referral. These findings suggest not only an improvement in mental health for the larger proportion of participants but importantly, a move from a position of ‘illness’ at the beginning of the study to one of ‘wellness’ at the end.

The majority of participants (n = 21) were not in paid employment, yet participants frequently described themselves as ‘working’, while taking part in the Arts on Prescription sessions. Several participants suggested the programme was a springboard in motivating them to commence new projects, begin seeking voluntary or paid employment, return to phased
employment after long-term leave, or find ways of exhibiting and/or selling their artwork. This concurs with those findings of Stickley et al. (2007) in that the Arts on Prescription programme promoted self-worth and gave participants an opportunity to develop a social role and positive identity. As described by Barker (1998), this led to recognition for their ‘work’ in a society that often denies mental health service users any recognition or meaningful role.

It is also important to note that although the majority of participants (n = 21) were not in paid work, the majority of these participants (n = 16) felt ‘socially included’ at the end of the study. From the literature reviewed, stigma and social isolation are critical factors for individuals suffering from mental illness (Secker, 2005). For those participants who reported high levels of anxiety and/or depression at the baseline stage, an avoidance of social situations and an increase in social isolation was described as their ‘default position’, yet the Arts on Prescription programme promoted feelings of inclusion amongst the cohort, encouraging individuals to expand their horizons, both socially and creatively.

In sum, participation in the Arts on Prescription programme appeared to support outcomes consistent with a recovery model for mental health (Repper & Perkins, 2003; Secker, 2005; Spandler et al., 2007) in encouraging hope for the future, increasing participants’ self-esteem, confidence, social inclusion and motivation, as well as creating a group of mutually supportive people with similar issues. That is not to say that reported changes will be sustained, due to the temporal nature of the programme and individual issues of mental health. Yet at the time of writing, the majority of participants (78%) benefited from their experience of taking part in the Arts on Prescription programme, reporting largely positive impacts upon their mental health and wellbeing.
6.2 Limitations of the present study

Due to the temporal nature of the present study and the participants involved, there are a number of limitations to consider in this discussion. The small sample size, gender imbalance and imbalance in ethnicity restrict the external validity of the results. In spite of employing valid and reliable scales, the study employed self-report methods (i.e. questionnaires, interviews), thereby suffering from those criticisms levied at all comparable methods and as described in the literature, i.e. response bias, memory bias and defensiveness (House & Howe, 1999; Gray, 2004; Klass, 2008). This is due to the subjective nature of the variables, in measuring what participants ‘say’ rather than what participants ‘do’.

One participant’s self-reported measures of social isolation, anxiety, depression and wellbeing may have differed significantly from another’s, while personality, situation, mood and emotion may have influenced responses from day to day. Participants were experiencing a range of moderate to severe mental health issues during the programme, often reporting the effects of their clinical treatment and/or medication. These factors may have affected responses to the Arts on Prescription programme, since participants would be predisposed to interpret information dependent upon their mental state, subsequently resulting in negative outcomes.

In addition, findings are subject to maturation. Participants will have undoubtedly altered during the course of the study or between repeated measures, due to the passage of time. Some of these changes may be permanent (e.g. biological development), while others may be
temporary (e.g. fatigue or trauma). The dependent variables (SI, GAD-7, PHQ-9 and WEMWBS) were measured at T1 and 2, while the independent variable (the Arts on Prescription programme) took place in the interim, however it was impossible to isolate other external influences or variables from the study. In order to provide a more rigorous analysis - unlike many examples reviewed in the literature - the present study maintained a waiting list comparison group. However, waiting list comparison group participants were invited to the additional Arts on Prescription social events, therefore taking part in aspects of the programme during their period of ‘waiting’. This provided a positive means of maintaining contact with participants, while encouraging them to complete research questionnaires. Yet this might also be seen to have contaminated the results to an extent, since they were already engaging with the Arts on Prescription intervention, albeit less frequently or intensely. Future studies are recommended therefore to isolate waiting list comparison groups (as far as is possible) from the Arts on Prescription intervention, until they are to begin the programme.

With regard to the specific scales employed, it is evident that results pertaining to Social Isolation (SI) were mixed across the sample. This may have been due to the nature of individual participants, considering themselves ‘marginalised’ or ‘excluded’ and as such, tending towards a preference for social isolation. However, it may also be due to employing the reduced version of the scale (in an attempt to avoid over burdening participants), which may have affected its reliability. Future studies are recommended to employ instruments in their full and original format, so as to ensure reliability.

According to several empirical studies, one of the most frequent predictors of wellbeing is personality (DeNeve & Cooper, 1998; Gutierrez, Jimenez, Hernandez, & Puente, 2005), while McCrae (2002) estimates that up to 25% of the wellbeing variance amongst individuals might be accounted for by personality. The present study did not set out to investigate correlations between wellbeing and personality. However, the aforementioned empirical evidence would suggest that findings might be affected by individual personality traits, particularly those of neuroticism and extraversion. Control of demographic variables in the study of the correlates between personality and wellbeing may have been accounted for in the tests employed, yet simultaneous control of personality and demographics would appear necessary in order to explore their associations with effects upon wellbeing. Since Arts on Prescription programmes
are largely focused upon individuals with mental health issues, it would seem appropriate to consider these factors at the stages of design and analysis. Future studies might therefore be recommended to test participants for individual differences at the baseline stage, in order to extend our broader understanding of impact of Arts on Prescription upon social isolation, anxiety, depression and wellbeing.

Discussion of research methodologies (Hammersley & Atkinson, 1983; Burgess, 1984) has indicated how certain variables (e.g. age, sex and gender; race and ethnicity; employment and social status) are not only variables in the substantive area of investigation, but also how these characteristics of the researcher may influence the relationship with the participants. The findings of the present study may then suffer from experimenter bias and/or teacher effects in spite of all attempts to remain objective and impartial. Finally, the analyses suggest participants in the Arts on Prescription programme reported decreased anxiety and/or depression and increased wellbeing, yet these outcomes might also be as a result of the Hawthorne effect (Adair, 1984) in that participants were given additional time and attention through the present study. In terms of proving causation then, the present study and its outcomes will be open to criticism. Nevertheless, this study provides encouraging findings to support the Arts on Prescription programme, those questions raised by the current investigation and future research in the field.
6.3 Learning related to the intervention

As described previously, participants were referred to the present study via their GP, mental health worker or through self-referrals. For those who self-referred, an assessment meeting took place with one of the mental health consultants prior to commencement. Certain participants reported having waited up to two years to be allocated a place on the programme, with many of these suggesting they had now ‘moved on’ in terms of their mental health. Recruitment procedures were elongated due to firstly securing funding, and secondly gaining ethical approval for the study, with many potential participants suggesting the programme was not now relevant to their situation. This is likely to be a recurrent challenge in any similar, future Arts on Prescription programme, unless the financial means for evidence based research - through health commissioning bodies - are secured for such interventions to be sustained over the longer-term.

In addition, a large group of participants attending the Cambridge location had been assessed by the Cambourne mental health counsellor and vice versa. Counsellors and participants alike were to some extent confused by the groupings, expecting to be working with those they had already made contact with. This was due to the logistics of groupings across the two phases of
the study and likewise the two locations, yet it did result in some negative effects at the beginning of the programme. Future studies would be recommended to investigate more effective means for the allocation of individuals to diverse counsellors and/or locations, while attempting to secure resources for a sustained Arts on Prescription service.

Delivering such an intervention to individuals experiencing mental health issues (i.e. anxiety and/or depression) will frequently be subject to challenges above and beyond programmes delivered to a more homogenous cohort. As described previously, the attendance of participants to the Arts on Prescription sessions and social events - including the dynamic within each group - altered from week to week. From the literature reviewed, attrition rates are frequently cited as a limitation with such studies, with participants failing to complete the intervention and/or the requirements of the research study. However, this phase of Arts on Prescription resulted in extremely high numbers of individuals (34 of a potential 36) completing both strands of the programme, i.e. intervention and research.

In reviewing the qualitative data, it is evident that these high attendance and completion rates were due to the commitment of the delivering team and their regular telephone and email contact with absenting participants, from week to week. This communication appeared to build trusting relationships with the participants, in that several clearly felt able to re-attend, even if their absence had spanned several weeks. With regard to completion of the research questionnaires, missing data was often only completed after three follow-up telephone enquiries and two written letters. This approach clearly demands additional time, skills and resource, which should not be underestimated in future studies of this nature.

The pairing of one delivering artist with one mental health counsellor ensured that participants were given an opportunity to discuss individual issues away from the main group, should they become distressed or anxious during an Arts on Prescription session. An analysis of interview data suggests that both parties (i.e. deliverers and participants) benefited from this approach. Participants felt they had an experienced individual, with whom to share their concerns, while the parings of artist and counsellor provided a rich dynamic for the group, and the programme more generally. Future studies therefore would be recommended to ensure that deliverers and participants alike are aware of the need for open and supportive dialogue throughout.
A wide range of stimuli and visual art activities were included in the Arts on Prescription programme (e.g. wire work, clay work, drawing, stitching). However, several participants were under the misapprehension that there would be alternative activities in the sessions (e.g. painting, papier mache, rug-making). This was as a result of having seen a film account of the pilot programme, which included similar activities. Certain participants therefore became disappointed at the beginning of the programme, requiring considerable encouragement to continue. Future studies should bear in mind that potential participants may become ‘fixed’ in their expectations of such a programme prior to commencement. Complete transparency and open, on-going dialogue with all participants is required, as to the reasoning and content of both the arts intervention and the research study.
6.4 Learning for future research

This research has revealed the challenges for any study aiming to investigate the effects of arts participation in adults with mental health issues including recruitment, sampling, instrument selection, correlation and attribution of causation. As has become evident, there are no simple answers to either defining or measuring the impacts of an arts intervention upon mental health and wellbeing in a real world context; a variety of techniques and tools have to be adopted to ensure optimal conditions for validity and reliability. However, the present study has provided an insight into the complexities of this field of research, particularly in relation to Arts on Prescription studies engaged with often vulnerable or disadvantaged members of society.

Although there is an ever-increasing body of research investigating the impacts of arts and health interventions, there appears to be a lack of coherence and consistency within the field. The literature reviewed advises that several features are necessary for findings to be robust, yet acknowledges these have been largely neglected in previous Arts on Prescription programmes. In view of the findings of the present investigation and with reference to the literature, six factors are identified in contributing to the design and validity of future studies:

1. Clear definitions allowing for (international) comparisons of arts and health research.
2. Clear outline of the scope of the research (micro or macro level) in order to understand the level at which outcomes are expected.
3. Longitudinal research, as outcomes of interventions are often not immediate and may only be observed over time.

4. Mixed methods (including valid and reliable qualitative and quantitative tools) to generate comparable data, yet also in order to remain sensitive to the context.

5. Focus on treatment and non-treatment groups in order to understand the difference that the arts intervention makes to the treatment group.

6. Robust evaluation of evidence in order to move beyond the anecdotal.

In order to address at least some of those criticisms levied at arts and health research, the present study included: a mix of quantitative and qualitative methods; the use of valid and reliable clinical scales; a randomised waiting list comparison or non-treatment group; analysis regarding change across two time points. To further support the present study, the London School of Economics (LSE) were commissioned to complete a supplementary analysis relating to both health economics and cost-effectiveness (McDaid & Park, 2013). This small scale feasibility study set out to investigate the costs of Arts on Prescription, as compared to alternative low intensity interventions in the treatment of mild to moderate anxiety and/or depression. The analysis then considered the level of effectiveness that Arts on Prescription would need to achieve relative to ‘no intervention’ and ‘usual care’ in helping the recovery process of people with significant levels of depression, as defined as having a PHQ-9 score of more than ten (McDaid & Park, 2013).

In England the cost effectiveness of health interventions is usually expressed in terms of the costs per Quality Adjusted Life Years (QALY) gained. This allows policy makers to compare the relative cost effectiveness of very different interventions, in tackling different health problems and diseases while using a common metric. This supports service commissioners in prioritising how to make best use of limited budgetary resources, taking account of other important concerns such as equity, infrastructure, population characteristics and local/national policy goals. In their analysis, McDaid and Park (2013) investigated the potential incremental cost per QALY gained, using published UK estimates of quality of life scores associated with mild, moderate and severe depression.
For an intervention to be considered cost effective, it needs to have a cost per QALY gained of less than £20,000 (McDaid & Park, 2013). This is a value judgement, yet one that has historically been an important consideration in decisions made by NICE. McDaid and Park’s analysis was described as ‘conservative’ since they chose £20,000 (rather than £30,000) as their threshold, given this amount is more commonly used in the promotion of health interventions. Their objective then was to establish whether Arts on Prescription might prevent the development of severe depression, while supporting individual recovery.

With regard to the costs of the arts intervention, the Arts on Prescription programme of 48 individual sessions cost £13,693, excluding any overhead costs associated with Arts and Minds. Of these total costs, £510 was an in-kind benefit provided by the venues who charged lower than commercial rates for venue hire, thus the total costs to Arts and Minds would be £13,183. The average cost per attendance then was £40.51, with an average cost of £311.21 per participant. If 100% attendance rate had been achieved, the cost per attendance would fall to £25.93; if there had been 12 participants in the Cambourne: Phase 2 cohort meanwhile, the cost per participant would fall to £285.28. This compares favourably to alternative health interventions.

In terms of cost effectiveness, if there is a recovery rate to PHQ-9 scores of below 10 of 37.5% initially using GP referred Arts on Prescription, the total cost of this strategy for a cohort of 44 people would be £63,448. These costs would be higher than those of IAPT alone, but there would be a gain of approximately 1 QALY for the whole cohort. This would lead to an incremental cost effectiveness ratio of £19,839 per QALY gained, a value that is considered cost effective in an English context. However, self-referrals to Arts on Prescription would still have a cost effectiveness ratio above £20,000 compared to IAPT alone, due to the higher costs of assessment and as such would not be considered to be cost effective.

Finally, in projects of this nature, there will be a need for considerable investment in the planning and setting up stages of the programme. Typically, these costs are not covered by grant funding or budgets from commissioners. Moreover, these resources are often overlooked in any analysis, yet are vital for those considering replicating a programme in a different setting. Examples of such costs might include establishing relationships with key local stakeholders, in order to obtain their buy-in to support the implementation of such public health programmes.
Fundraising and the recruitment of staff are also time consuming and costly activities. It is estimated that 30 hours were devoted to these activities by Arts and Minds (McDaid & Park, 2013). Applying a cost per hour of £11.20, this time has a total estimated value of £336. This includes 12 hours allocated to fundraising, 8 hours for stakeholder meetings and 4 hours for staff recruitment. These inputs appear modest, yet it should be remembered that Arts and Minds has been in operation since 2007 and has established links with local health professionals, community organisations and other stakeholders. The estimated costs for the setting up of the present study are therefore recognised to be less than those needed to replicate such a programme in an area where an established arts and health organisation is not in place. Future studies would therefore be recommended to account for the time and resources necessary to both devise and deliver such a programme, in order to demonstrate the importance of sustained relationships and respected organisations within the community.

The treatment of mental health requires the skilful application of a wide range of approaches and techniques and a willingness to explore new ways to improve mental health and wellbeing across the population. In recent years, the evidence that engagement in the arts can produce measurable benefits in the prevention and treatment of ill health has increased exponentially (Staricoff, 2004; Secker, 2005; Daykin, Byrne, Soteriou & O’Connor, 2008). If the arts and health sectors are to work together effectively, they will need to understand each other, work to their strengths and identify common ground. Conceptual and theoretical work should therefore go hand-in-hand with a systematic programme of empirical research.

A truly progressive research programme requires a realistic theoretical framework that is able to generate hypotheses, while remaining sensitive and flexible to the unique ‘nuanced and intangible’ nature of the arts. Such a programme also requires a critical mass of researchers - artists, health professionals and academics - working in collaboration and competition to test hypotheses and establish robust findings through well-designed studies, replication and synthesis of evidence. With the cumulative body of arts and health research and the dialogue stimulated by the present study and other similar examples, we continue to move in an ever-forward direction.
7 Summary and conclusions

The present study set out to investigate the impacts of a participatory visual arts programme upon the health and wellbeing of 42 adults experiencing mild to moderate anxiety and/or depression. Through a mixed methods design, it sought to determine whether participants experienced any change in self-reported levels of social isolation, anxiety, depression and wellbeing across the duration of the Arts on Prescription programme and if so, were those changes similar and/or comparable for individual participants. Certain methodological limitations were apparent in the analyses, although the emerging evidence suggests that more positive than negative effects (i.e. decrease in anxiety and depression, increase in wellbeing) were obtained across the duration of the study.

This phase of Arts on Prescription resulted in positive outcomes for 78% of participants. Research suggests that antidepressants are only effective for 30% of patients, while partially effective for another 30%. The remaining 30% of cases gain no benefit at all (Radhakrishnan, Hammond & Lafortune, 2011; Radhakrishnan, Hammond, Jones, Watson, McMillan-Shields & Lafortune, 2013). For many people, the side effects are more unpleasant than the depression itself, so they discontinue treatment (Mukuria, Brazier, Barkham, Connell, Hardy, Hutten & Parry, 2013). Meanwhile, studies have shown that Cognitive Behavioural Therapy (CBT) has a success rate of towards 60% in treating patients experiencing depression (Mukuria, Brazier, Barkham, Connell, Hardy, Hutten & Parry, 2013). Considered alongside the literature reviewed and other, similar Arts on Prescription programmes across the UK, it would appear that such programmes are a cost-effective and positive means of treating patients experiencing the symptoms of anxiety and/or depression.
The findings reported by LSE are described as ‘conservative’ in terms of economic benefits. This analysis focused upon those results relating to depression (PHQ-9) only. It did not however include benefits resulting from improvements in psychological wellbeing (WEMWBS), anxiety (GAD-7) or social isolation (SI). Nor did this analysis acknowledge any additional (social) benefits resulting from participating in an arts intervention more specifically, as described in the qualitative results chapter of this report. Nevertheless, the economic analysis conducted by LSE suggests that this model of Arts on Prescription has the scope to be a cost effective intervention in reducing the risk of persistent moderate and/or severe depression.

Considered from a health system perspective and compared to low intensity IAPT alone, if a recovery rate of 37.5% is achieved, Arts on Prescription is demonstrated to be cost effective. This may increase costs to service commissioners but improved outcomes will be achieved. If the perspective is broadened so that productivity losses are avoided, the model becomes a cost saving when a 16% recovery rate is achieved. All figures are more favourable when Arts on Prescription is compared to stepped-up intensity interventions. LSE suggest that the cost effectiveness of the programme is also likely to improve if the intervention is scaled up.

In the present study, 10 of the total 34 intervention participants made a recovery from depression. If 13 individuals who did not have PHQ-9 scores above 10 at enrolment are excluded from the analysis, then the recovery rate increases to almost 50%. A larger study is therefore recommended by LSE in order to gain an accurate estimate of recovery rates, while testing whether Arts on Prescription might achieve the minimum rates of recovery needed to be cost effective from different perspectives.

The field of visual arts and health research is not yet fully developed, however further collaborations between artists, health professionals and academics will undoubtedly lead to a greater understanding of what constitutes effective practice in a real world setting. More sophisticated methods of research design - incorporating a range of qualitative and quantitative methods - delivered to a large and representative sample, need to be adopted if future studies are to give a clearer indicator of the impacts of Arts on Prescription programmes upon individual mental health and wellbeing.
The positive findings from the present study indicate a need for further research, with regard to clinical outcomes and the positive impacts of Arts on Prescription upon individual mental health. An important element of this appears to be related to project management and more specifically, the requirement for continuous sensitivity and flexibility from all of those engaged in the delivery of such programmes and including facilitating artists, mental health professionals and researchers. While it is understood that formal evaluation is needed in order to build the evidence base for arts and healthcare, this needs to be adequately resourced and effectively managed. In the present study, it was evident that high levels of commitment and goodwill from the artists, counsellors, project manager and research manager enabled the team to successfully deliver an ambitious protocol, within a limited period. In addition, the process of guiding such studies through ethics and research governance procedures - demanding additional time, resources and expertise - should not be underestimated.

It appears there are no simple answers to measuring the impacts of Arts on Prescription upon individual mental health and wellbeing in a real world context; a variety of techniques and tools have to be adopted to ensure optimal conditions for validity and reliability. However, the present study has provided a valuable insight into the complexities of this field of research, particularly in relation to studies engaged with those often more vulnerable members of society. Ultimately, the question remains as to how far the drive for hard evidence is relevant to arts and health programmes when participant numbers are small, when outcomes and impact vary according to the individuals involved and importantly, and whether it is ethical to impose a clinical framework upon arts practice that is not concerned with clinical outcomes. A mutual acceptance of the strengths and values of the two sectors is suggested, with a shared approach built on an expanded research programme, which might help to bring about the development of a ‘common language’ enabling meaningful exchange between patients, academics, artists and health professionals alike.
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Core: Clinical Outcomes for Routine Evaluation. A validated research measure that asks questions grouped into four scales assessing wellbeing, problems/symptoms, life functioning and risk to self or others.

GAD-7: Generalised Anxiety Disorder Assessment. A validated research scale comprising 7 questions to assess anxiety, used in primary care.


NIACE: National Institute for Adult Continuing Education. A charity/non-governmental organisation that aims to ‘encourage all adults to engage in learning of all kinds.’

NICE: National Institute for Health and Clinical Excellence. An independent organisation set up by the Government in 1999, that decides which drugs and treatments are available on the NHS in England and Wales.

PHQ-9: Patient Health Questionnaire. A validated research scale comprising 9 questions to assess depression, used in primary care.

Primary Care Trust (PCT): plans and purchases primary and community care services for a given geographical area; responsible for spending around 80% of the total NHS budget.

Referral: when a service user/patient is referred by a health or social care worker to another service e.g. GP referring a patient to a hospital-based service. If ‘direct’, the patient or service user contacts the service themselves.

Service user: someone who uses a (healthcare) service; may also be described as ‘patient’ or ‘client’.

WEMWBS: A validated research scale comprising 13 questions to assess mental well-being, used in primary care.