



# Setting up a Catchment Based Social Prescription

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Phase Two Report: Pilot Results and Analysis

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## Report for the Environment Agency

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# Executive Summary

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## 1.1 Aims

The overall aim of this project was to contribute to a growing evidence base on the benefits of social prescribing, and to show the practicalities of setting up a river-based social prescription that could be followed by other groups, particularly catchment partnerships and Rivers Trusts.

This Phase II report builds on the practical learning around how to set up an intervention (covered in the Phase I report) by reviewing the results and learning that was achieved after the intervention was run.

## 1.2 Recap of Approach

Eunomia oversaw the design and primary research methodology for a six-week programme called *River Remedies: Improving Wellbeing through Nature*. The programme offered vulnerable adults and teenagers the chance to engage with nature at sites on the Bristol Frome River. The impacts were assessed via wellbeing scores recorded before and after the programme. The likelihood of participants to engage with nature in a more long-term way was also assessed.

To develop the programme, Eunomia carried out literature reviews to assess key issues and evaluation methodologies. We then worked closely on intervention plans with Bristol Avon Rivers Trust (BART), who brought in-depth understanding and knowledge of the local area. BART helped to co-ordinate river access and risk assessments, with support also enlisted from the South Gloucestershire Council Public Health team. The South Gloucestershire team recruited 16 participants thought likely to benefit from taking part and managed contact with the participant group throughout the programme. The participants were grouped into two cohorts, an adult group and a young person group consisting of secondary school age children.

Programme participants were invited to attend a six 1.5-2.5 hour sessions on Fridays in April and May 2018. The programme was made up of a variety of river-based activities including looking at river samples, testing for phosphates and nitrates, litter picking and yellow fish campaigning which involves stencilling a yellow fish symbol beside drains to remind people that any waste entering them may go directly to the nearest stream, river, lake, canal, beach or bathing water - causing pollution and killing wildlife. The design of the programme activities is covered in depth in the Phase I report, and links closely to the five ways to wellbeing.

## 1.3 Results

The intervention programme delivered multiple benefits. By facilitating access to and engagement with a local natural environment we improved the wellbeing of individuals

with mental health illnesses. In this process, awareness of local conservation issues was raised, and connections were created which will last beyond the scope of the project, contributing to environmental management of the Bristol Frome.

Reflections on the project have allowed lessons to be learnt that can be disseminated more widely, providing a precedent for set up and execution of a social prescribing intervention and hopefully leading to wider adoption of similar schemes. The evaluation of the project reaffirmed the importance and practicality of using the Warwick-Edinburgh scale for assessing changes to wellbeing. As a result, the project contributes to a growing evidence base for the benefits of social prescriptions and in particular to a limited evidence base for the benefits of blue space interventions. Research to date on the mental health benefits of engagement with inland blue space is sparse.

Wellbeing scores rose dramatically in the adult participants, transitioning from levels considered 'poor' by national standards, to being in line with population averages. Connection to nature increased in the majority of participants and two participants finished the programme with a maximum score of 10 for their self-assessed connection to the natural environment. However, these results are for a very small sample and over a short period, so cannot be treated as statistically significant.

In addition to these formal assessment results, more anecdotal positive impacts were reported. The South Gloucestershire team reported that a potentially severe impact on one individual's mental health was better managed as a consequence of their involvement in the programme. Several members of the younger person group overcame some of their fears of water-base recreation. The support worker for this group reported that this would have contributed to the self-esteem of the participants.

Follow on work would be required to estimate likely NHS savings which won't be possible until South Gloucestershire have had the chance to track whether GP and secondary medical visits decline over time, or if there is a reduction of medication used in the participant group. Water customers could face lower bills via the roll-out of similar schemes and an overall reduction in the use of anti-depressant medications, which in turn could reduce costs for water companies' wastewater treatment processes.

## 1.4 Lessons Learned

Through the delivery of this social prescription, valuable lessons were learnt which should be considered and incorporated into the design of future schemes. Social prescriptions need to be tailored to the target group both in length and in content. A shorter session worked well with the young persons' group, and a longer session with the adult group. A clear offer needs to be made to participants at the recruitment stage so they understand what the programme is, what it is trying to achieve and why they have been invited to participate. Specifically developed marketing materials can be valuable in this context.

Sufficient time should be allocated to the recruitment process which is important and takes time. Once recruited, it is also important to allocate resource to regularly checking

in with participants and encouraging or supporting their attendance via communications in the days before the session.

Finally, this project shows that collaborative working between nature trusts and local authorities can deliver successful, locally based, social prescriptions based on engagement with green/blue space. Indeed, such partnership is essential to make good use of local knowledge and to ensure that safeguarding issues are dealt with within established frameworks, supported by professional staff.

The take home messages are that investment of time prior to initiation of the social prescription is vital for the success of the scheme, recruitment of participants should be a careful process and participants should be made aware of the need to complete evaluation documents prior to their participation. Incorporating the five ways to wellbeing was central to the development of the programme of sessions, and can provide a structured approach to design of a social prescribing programme.

## 1.5 Conclusions

River-based remedies, a kind of nature-based social prescription, helped manage mental health risks and improved wellbeing. This project demonstrated that a river-based social prescription can be completed which is safe and has a positive effect in terms of increased engagement with the river environment, improved wellbeing and improved self-esteem. The ability to prevent the escalation of life challenges into more severe mental health episodes will potentially reduce dependence on prescription drugs and lead to lower healthcare costs in the long term.

Participation in a blue-green social prescribing intervention over a period of just six weeks improved wellbeing in individuals with poor mental health. The statistical significance of this result is weak, but anecdotally, individual positive effects were clearly observed. A potentially severe impact on one individual's mental health was better managed as a consequence of their involvement in the programme. This underlines the wider importance of nature-based events in groups as a means of increasing social contact with peers and support organisations.

Expansion of such river-based schemes should be considered as a means of connecting individuals with the natural environment to improve their health. Further experience and use of a common methodology for measuring wellbeing impacts, using the approaches in this project, will make it easier to build a comparable and more robust data set for the future.

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## 1.0 Introduction

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A pilot social prescription was completed between April and May 2018. Six sessions focussing on different aspects of ecosystem health of the River Frome were delivered. These sessions were tailored to incorporate different Ways to Wellbeing, and aimed to develop learning for participants through the duration of the programme. The intervention was run with one group of adult participants – referred through various branches of South Gloucestershire’s mental health services and a group of young people – recruited from the Pathways Learning Centre. This document summarises the findings of the data collection, and other lessons associated with the pilot trial. Of those who participated, seven completed the baseline evaluation questionnaires and follow up questionnaires – a sample made up of four young people and three adults.

This Phase II report also discusses the findings which are not covered in the data. This includes learnings from delivery of the social prescribing intervention, and qualitative feedback from those we worked with to deliver the intervention. On the whole the Phase II provides valuable insights for other organisations looking to set up a social prescribing initiative, and provides evidence for the mental wellbeing benefits of engagement with blue space – an area in which data is lacking at present. The Phase I report provides guidance from the initial phase of the project, including a method for development of a social prescribing scheme from scratch.

## 2.0 Approach to Evaluation

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The following approach was outlined in the initial report for analysis of data and reporting. It was based on the assumption that participants who begin the programme would complete it, and that those who participated in the programme would complete both evaluation forms.

The Warwick-Edinburgh Mental Wellbeing Scale was selected for use to evaluate mental health impacts of the intervention. It has not yet been validated for use in individuals, however the best estimates for meaningful change stand at between 3 and 8 points. At a group level a ‘statistically significant’ change will depend on the number of participants completing WEMWBS. Due to access to a relatively small group of participants, our findings are reported as follows:

- Detail on raw change in WEMWBS score for all participants, including a comment on the number of participant who’s scores increased by 3-8 points (or more)
- Analysis of the group mean WEMWBS score prior to the intervention and post intervention and analysis of how this compares to the population mean.

- Assessed using the method applied in the Ecominds project.<sup>1</sup> In this study, participant wellbeing was compared to population means and described as high, average, or low depending on the number of standard deviations away from the mean.
- We aimed in the initial scoping to complete appropriate statistical analyses, to understand the significance of any changes observed in the data. However this has not been possible due to number of completed evaluation responses being lower than anticipated.

A qualitative discussion of the comments received is also included.

Analysis on the results that we have obtained is discussed below, in Section 3.0.

Throughout, EQ1 refers to Evaluation Questionnaire 1 which was completed prior to the first session of the programme. EQ2 refers to Evaluation Questionnaire 2 which was completed at the end of the final session of the programme. Participants are referred to by a letter, either Y for young person or A for adult, and a number.

## 3.0 Results

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### 3.1 Demographics of participants

Data was recorded on the demographics of the participant group. The group of young people recruited was entirely male, and made up of individuals of secondary school age. The adult group was more diverse, made up of six male and two female participants whose ages fell into the range 24-64. All of the participants were of white British ethnicity and two of the adult participants were of carer status.

It would have been preferable to recruit a more mixed cohort, especially in the young person's group. However, the priority was to recruit those with a need for the intervention rather than to ensure an even split of gender and representation of minority ethnic groups. The ethnicity of participants also reflects the nature of the area we were working in as 91.9% of South Gloucestershire's population are white British.<sup>2</sup> As such, recruiting a wider demographic may come naturally with an intervention where participant numbers are higher.

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<sup>1</sup> University of Essex, and Mind (2013) *Ecominds effects on mental wellbeing: An evaluation for Mind*, 2013, <https://www.mind.org.uk/media/354166/Ecominds-effects-on-mental-wellbeing-evaluation-report.pdf>

<sup>2</sup> South Gloucestershire Council (2014) *Equality Plan 2015-2019; Part 2 – A brief profile of South Gloucestershire* <http://edocs.southglos.gov.uk/equalityplan2015/pages/part-2-a-brief-profile-of-south-gloucestershire/>

### 3.2 Warwick Edinburgh Mental Wellbeing Scale (WEMWBS)

The average WEMWBS scores for the participants before and after the intervention are displayed in Table 3-1. WEMWBS is a 14 question evaluation, which was completed by participants before and after the intervention, and yields a score between 0-70 indicating the participant’s level of mental wellbeing.

**Table 3-1 -Average WEMWBS scores for participant groups**

	All Participants	Adults	Young People
<b>Before Intervention</b>	44.85	38.71	52.00
<b>Before Intervention</b> (excluding participants without follow up questionnaires)	45.71	37.00	52.25
<b>After Intervention</b>	46.86	47.00	46.75
<b>Before</b> (excluding Y1)			50.67
<b>After</b> (excluding Y1)			55.67

Comparing the data for the participant group with the population average shows us that the adult participants have a ‘poor’ mental wellbeing score on average, whereas the young people fall into the category of ‘average’ mental wellbeing. This has been categorised based on the method used in the Ecominds report, whereby those with WEMWBS scores within one standard deviation of the population mean are described as average, and those one or more standard deviation below the population mean described as poor.<sup>3,4</sup> As reported in the Health Survey for England (2016, published 2017) the population mean score for WEMWBS stands at 49.6 for women, and 50.1 for men.<sup>5</sup>

As such, we can see that the participant group targeted was of poor mental wellbeing for the adult participants, and average wellbeing for the young people (being within one SD of the mean). This is unsurprising given that the adults were referred via the South

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<sup>3</sup> University of Essex, and Mind (2013) *Ecominds effects on mental wellbeing: An evaluation for Mind*, 2013, <https://www.mind.org.uk/media/354166/Ecominds-effects-on-mental-wellbeing-evaluation-report.pdf>

<sup>4</sup> Wellbeing categories are calculated using the standard deviation of the population mean. Scores which fall into the range 1 SD below the mean or more (i.e. 49.9 -8.36) are considered to have poor wellbeing, scores that fall within 1 SD above or below the mean are considered average and those over 1SD above the mean are said to have good wellbeing.

<sup>5</sup> NHS England (2017) *Health Survey for England 2016: Wellbeing and Mental Health*, December 2017, <http://healthsurvey.hscic.gov.uk/media/63763/HSE2016-Adult-wel-bei.pdf>

Gloucestershire mental health services and the young people all came from a learning centre for individuals with additional needs which may include but were not limited to mental health illnesses.

Looking at the results for after the intervention, on average the WEMWBS score for the adult participants increased by ten points. This changes their average score from being in the 'poor' category to 'average'. The individual change observed is explored in greater detail in the following sections. However, it is worth noting that a change in score of 3-8 points (or more) is considered to represent a significant change in wellbeing and as such this is very positive. Looking at the aggregated score for the young people, the average decreases between the initial evaluation prior to the intervention and follow-up evaluation. Whilst this may initially seem concerning, it can be explained largely by the inclusion of one anomalous result (Y1) whose score decreases from 57 to 20 points between the two evaluations. Suggested explanations for this result include mis-labelling of evaluation forms, such that they have been recorded in the wrong order, or an individual going through crisis due to external circumstance during the course of the programme. It is not possible to examine the cause behind this result further and so it was excluded from the results for clarity. The effect of the result was exacerbated by only having four data points for the young people in total. Excluding this result, the average increase between initiation and follow up for the young people was 5 points, which also falls into the bracket considered to represent a meaningful, positive change.

As such, subject to the caveats above, for all participants completing the intervention and associated evaluation documents a meaningful and positive change was observed in mental wellbeing.

### **3.3 Change in individual WEMWBS Score**

Given the small number of participants (N=7) who completed both the baseline and follow up evaluations it has been possible to look at the changes in score on an individual basis. The outcomes recorded on an individual basis are shown in Figure 3-1. Consistent with the discussion above, these outcomes show good evidence of increase in WEMWBS scores across the adults, with the contrast of the mixed results in the young people. The largest individual increase in WEMWBS score is seen for A3 – where the increase from baseline to follow up is 17 points from a baseline score of 26 to a follow up score of 43. This is an excellent outcome and demonstrates a major change in wellbeing for this participant. The change in WEMWBS scores for the remaining adults are increases of 7 and 6 points, still above the threshold considered by the developers of the scale as a meaningful change.

Looking at the data for the young people, a trend is less obvious. The aforementioned result for Y1 is concerning – the wellbeing score decreasing from a baseline of 57 to a follow up score of 20, a decrease of 37 points. Whilst it was not possible to follow up on the cause of this result properly, opinion was that it was likely that the individual may have been purposefully generating a spurious result. However, such a cause is speculative and unfounded. Regardless of the cause, it is not expected that such a

decrease was the result of participation in the programme although it cannot be excluded.

Both Y2 and Y4 show an increase in wellbeing over the course of the programme, whereas Y6 shows a slight decrease – declining 4 points between baseline and follow up.

There are a couple of plausible explanations as to why the results have been observed in this way. These are discussed in Section 3.3.1.

**Figure 3-1 - Individual change in WEMWBS scores before (EQ1) and after (EQ2) the intervention**



### 3.3.1 Difference in impact for adults and young people

A difference was observed in the impact of the programme on the wellbeing of young people versus that of the adult group. A plausible explanation for this difference links to the method of recruitment for the two groups.

The adults were recruited by those at South Gloucestershire Council through existing networks. These included the early psychosis team, adult social care, the South Gloucestershire Wellbeing College and the Breakthrough mentoring scheme. As such, the adults recruited all had history of mental health illnesses of the type which social prescriptions would aim to improve. For example, this group would have been likely to benefit from the structure and sense of purpose obtained through getting involved with river improvement work or through a reduction in social isolation via engagement with new people.

By contrast, the young people were all recruited from the Pathways learning centre – a specialist school for children unable to stay in mainstream schooling. As such, they did not necessarily have mental health issues although the incidence of these is high in the school. This may have led to the young people having considerably higher baseline scores than the adults and showing less improvement over the course of the programme. Given the nature of recruitment, the young people were not meeting and working with new people on the project and this may have been an important difference.

Whilst this may seem to indicate that the selection of young participants could have been better targeted towards individuals with mental health issues, it is considered that this cohort have the potential to pose considerable cost to services in future and as such their involvement and increase in their wellbeing is still set to provide benefit to services in the long term.

### **3.3.2 Issue of small sample size**

A small number of participants (7) completed both the baseline and follow up evaluation forms. This has given rise to issues in data analysis. Due to the small sample size it has not been possible to complete statistical analyses as planned. This also means that the results are significantly distorted by a single outlying value – an effect which is reduced in large sample sizes. As such there is a significant amount of “noise” in the data.

It should be noted that noise would be expected in the data given the nature of participants. Whilst all participants would complete the same programme of interventions, we have no control or information over external factors influencing the wellbeing of these individuals. During the programme, more than one participant went through a “crisis” unrelated to participation in the project. As these things cannot be controlled for, the recommendation for future projects would be to recruit a higher number of participants than required on the expectation that when working with individuals with mental health illnesses, some may not be able to complete the programme or attend certain sessions due to external factors.

## **3.4 South Gloucestershire Indicators**

In addition to the formal evaluation using WEMWBS, South Gloucestershire also carried out informal assessment of results based on some of their own internal performance frameworks relating to social isolation and wellbeing.

Some of the key findings that were reported included:

- There was an average decrease across all participants in feelings of social isolation according to the results. This links well to improved mental health, and from the wider point of view of nature-based social prescriptions, illustrates the importance of connecting with others and with the environment around you
- There was an average increase across the other wellbeing indicators was 5.3, which represents an average increase of more than one on each indicator for

each participant and is very positive. These indicators related to life satisfaction, worthwhileness, feeling happy, and anxiety.

These results were based on an untested measurement scale that hasn't been tested for the specific measurement of individual responses to an intervention, so again are not statistically significant but still indicative of a positive effect from the programme.

## 3.5 Connection to Nature

### 3.5.1 Background

It was considered important to discern whether the programme had an impact on participant feelings of connection to nature. The reasons for this are twofold. Firstly, as explored in the Phase I report, there is significant and varied evidence linking proximity to natural spaces or connection to the natural environment and wellbeing. Secondly, by improving connection to nature it is hoped that the benefits of the programme for participants may continue beyond the scope of the study by facilitating access to natural landscapes within their local area.

As such, the following question was included in the evaluation questionnaire:

- 1) How connected do you feel to nature?

This question was used previously in a large scale study assessing the impact of green prescriptions on wellbeing, to measure perceived connection to nature. Prior to use in the large scale study, it had been successfully used by teams at the University of Essex in similar green care evaluation contexts but is not a validated measure. This question was chosen in preference to the Connectedness to Nature Scale (CNS) so as not to overload participants by creating a longer questionnaire. <sup>6</sup>

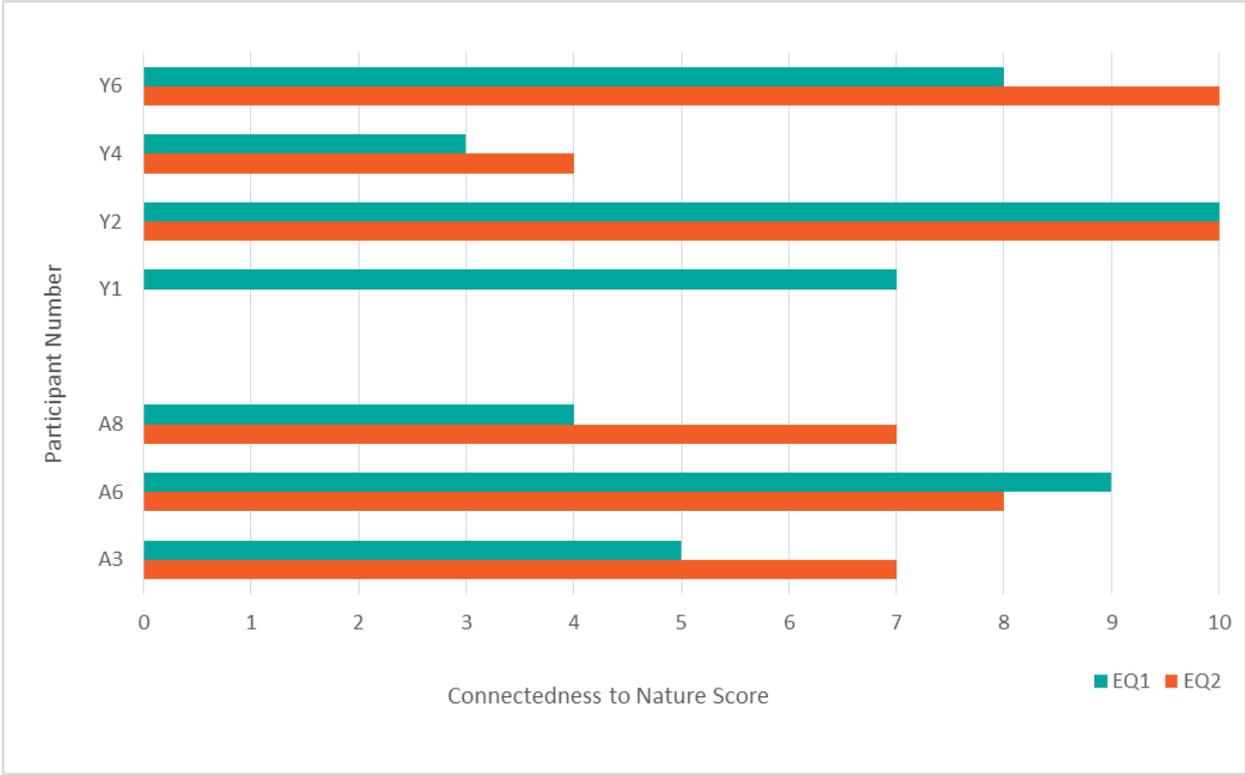
### 3.5.2 Results

For the majority of participants, an increase was reported in their connectedness to nature, in this case the blue/green riverside environment, as a result of the intervention. This was the case for individuals A3, A8, Y6 and Y4. The score for Y2 was unchanged by the intervention, and scores for Y1 and A6 saw a decrease. This result for Y1 is consistent with the values reported under the other evaluation criteria and potential basis for the change has been discussed elsewhere. It is also worth noting that two participants reported a maximum score of 10 for this metric following the intervention – both of whom were in the young people group. The individual results for connection to nature are shown in Figure 3-2.

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<sup>6</sup> University of Essex, and Mind (2013) *Ecominds effects on mental wellbeing: An evaluation for Mind*, 2013, <https://www.mind.org.uk/media/354166/Ecominds-effects-on-mental-wellbeing-evaluation-report.pdf>

**Figure 3-2 - Self-evaluation scores of connection to nature for before (EQ1) the intervention and after (EQ2)**



### 3.6 Discussion of comments received

Space was made available on the evaluation questionnaires for participants to record comments. This aimed to capture any additional feedback the participants had.

A number of comments focussed around the intervention giving individuals a sense of purpose and a ‘touchdown’ point in the week where they were required to check in with others. All of the comments received were positive and indicated that the participants were happy to be part of the programme and enjoyed the sessions received.

*“I have really enjoyed the sessions, they gave me a little purpose and something to look forward to each week.” – Adult*

*“Really enjoyed the sessions I managed to make – thanks everyone for their time and effort” – Adult*

*“Enjoyed them – Amazing, outstanding” – Young person*

*“[The riverine setting] really engages people and aids their wellbeing” – Session Lead*

In addition to the comments received, a number of the adult participants were keen to continue working with the Bristol Avon Rivers Trust, given their enjoyment of the

sessions. This was a hugely positive outcome – facilitating continued activity and engagement with natural spaces.

### 3.7 Reflections from the organisers

After the conclusion of the intervention, Eunomia hosted a feedback session for the representatives of BART and South Gloucestershire Public Health to reflect on the process. The top line messages were:

- Lead time and explanation are key to successful recruitment.
- Partnership with local school or local authority care support/social prescribing team is vital. They can reassure you that getting in the river is an acceptable “managed risk”,
- Local knowledge of the river setting, access points and equipment
- The social element is vital – it is not just about the direct involvement on the river, it is about tea, play, creativity (photography worked really well) and talking.
- Improving Access to Psychological Therapies (IAPT<sup>7</sup>) is central to the NHS strategy for dealing with mental health, but it is massively over-subscribed. This approach was important as it was able to support some quite vulnerable groups of people, not just the “worried well”. But you have to allow sufficient time to support patients of this type and expect a degree of drop-out.

In the notes that follow, CYP refers to “Child or Young Person.”

#### 3.7.1 What went well?

- The sessions were pitched at the right level for both the CYP and adult participants. The mix of activities was varied enough to keep interest.
- The length was about right (2.5 hours for adults and 1.5 hours for CYP).
- The Riverbank settings picked were varied and again this helped hold their interest.
- There were no serious behavioural or health issues during the sessions and the staffing level seemed about right.
- It was good to find activities that engaged males. The CYP session was all boys and the adult session was all men except for one woman. It is often harder to engage males in wellbeing activities so this was a positive.
- A number of adults said they wanted to continue working with the River Trust and asked to be put in contact to make this happen. This will probably need support to make sure it actually happens.
- Adults really opened up and disclosed significant challenges and we were able to help them access additional supports. One adult also had a period of crisis over

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<sup>7</sup> See for example, <https://www.england.nhs.uk/mental-health/adults/iapt/>

the 6 weeks and we were able to make sure other services were informed of his level of need so a safeguarding role was fulfilled.

- Collection of the initial information including baseline data went well.
- We found a couple of champions in linked services (social work and mental health trust) who started referring people to the sessions.
- We now have a much clearer product to promote to future interested parties.

### 3.7.2 What did not go so well?

- Recruitment was not as straight forward as expected. A lot of adults expressed an interest but converting to them actually attending was not so easy. Each lead took a number of contacts and this was very time consuming.
- We had eight people who said they would attend the first session with three dropping out the week before including one the day before the first session. This was despite a lot of contact with all eight confirming arrangements in the week leading to the first sessions.
- Weekly attendance fluctuated due to the client group having additional needs. So sessions varied between 2 and 6 attendees and this was often not clear until the last minute.
- A number of people were reluctant to allow their data to be used to evaluate the programme and we struggled to get post intervention scores.

### 3.7.3 Lessons learnt

- Not having a simple information flyer at the start made it hard to communicate the programme. Once these materials were in place it helped considerably.
- For the CYP having all our participants coming from one setting put us in a vulnerable position and it was very stressful as the school did not confirm arrangements until a few days before the first sessions. However once arrangements were in place having one pick up point did make transport more manageable. Having pickups from multiple schools would have been a challenge
- We probably gave ourselves too short a lead in time to recruit to the first sessions especially as this included the Easter holidays when we could not speak to the school.
- The adult session did not necessarily need any support workers so the sessions could be led just by the River Trust worker. The only downside to this was that support workers did sometimes have 1 to 1 conversations with people wanting to disclose personal information so with less staff this will not happen.
- Only one adult needed support with transport and so again this means the sessions needs less finance to be sustained.
- CYP sessions need both support workers and also transport to be provided. It is possible the school might provide both so this needs to be investigated.
- We went for adult and CYP groups with relatively high levels of need and this meant the sessions were not settled in terms of numbers and other issues arose in the participant's lives. However if this type of work is to get funding from

health or education sources it is more likely if it can demonstrate an ability to support people with a higher level of need.

- To get a well-attended session we need to recruit 3x the desired number to take account of people dropping out.
- Someone needs to take on the role of being a point of contact. This involves reminder phone calls and emails during the week and also being a point of contact on the day. This was a very time consuming role but is vital when working with this client group.
- It was lucky that we had equipment like waders and boots as they were needed by some participants. Storing and transporting this equipment is another issue that takes time and energy.

### 3.7.4 Other reflections

- As a public health commissioner I could clearly see the value the participants were getting out of the sessions and so I am very favourably disposed towards funding more of this work. Indeed I have already set aside budget to do this. If the recruitment issue can be resolved then I think we will put more money into nature based wellbeing sessions.
- For me it was clear that being in natural spaces is good for wellbeing. Having attended the sessions I felt this myself but also witnessed it in the group. I have also found new Riverbank settings I will come back to with my children.
- Another good outcome from this work is that I now know the River Trust exists and I think it is likely we will continue to work with the Trust in some format going forward.
- There seems to be appetite to build a network of this type of work. Since ending the session, I have had contact with Slimbridge and the Forest of Avon Trust. So nature based wellbeing is currently getting some recognition but is not yet a coherent whole.
- This is not just about helping local authorities deliver public health support. It also offers benefits to local authority requirements around education, special educational needs, adult social care and rehabilitating offenders.

## 3.8 Limitations

Finally, it is worth recognising some of the important limitations of our approach. Firstly, due to the timing of the intervention running over a six week period between early April and late May there could be a confounding effect on wellbeing of the change in seasons. Change in the number of daylight hours is significant over this period, and there was a significant change in weather and temperatures also. Seasonal effects have been previously demonstrated to influence the wellbeing of those with existing mental health

illnesses.<sup>8</sup> However, there is little that we could do to control or avoid any impact that this would have had on our results. This is true both for change in season as well as all other external factors which may be influencing participant wellbeing and is an inherent feature of work with people over an extended time period.

A second limitation of the approach is that we were only able to assess the wellbeing of the participants at two time points. This approach was taken to minimise the administrative load of participation in the programme on participants on advice from experts in mental health at South Gloucestershire council. The limitation of this is that we have no follow up with participants after involvement in the programme has ceased and limits our ability to evaluate any lasting changes or longer term impacts.

The robustness of our results have been impacted by the sample size which we were working with. The group sizes were purposefully kept small as it was important to ensure that all participants received interaction, and to ensure that participation would not be overwhelming for those who suffer from anxiety and may not be comfortable with a large number of new people. Advice from the Avon Wildlife Trust fed into this decision. However, the target group sizes of eight per session were not realised for most of the sessions. This was due to the individuals involved going through crises during the programme and being unable to attend. Finally, smallness of sample size was exacerbated by approach to data collection with complete evaluation forms not being collected for all programme participants.

The programme delivery was the responsibility of the session lead from BART, and public health co-ordinators from South Gloucestershire council. Whilst instructions were provided on the use of the evaluation forms, there perhaps wasn't clear enough communication with participants beforehand that the intervention was aiming to improve wellbeing and that this would be evaluated. As such, those administering the evaluation forms took a more careful approach which resulted in us receiving fewer complete results than was anticipated at the inception of the programme. The learning here is that in pilot schemes where evaluation is required to demonstrate impact it will be important to ensure that participants are aware of this beforehand and willing to participate with such monitoring.

Finally, whilst in the initial evaluation questionnaire design there was a question about likelihood of revisiting areas used in the programme this was not included in the questionnaire that was distributed to participants. This was due to the printed materials provided not being used, and perhaps indicates that communication around which forms to use at what point could have been clearer in the setup of the programme or that an individual needed to be present whose responsibility was to administer this process. This question aimed to assess the potential longer term impact of the intervention and due

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<sup>8</sup> *Seasonal affective disorder - Symptoms, diagnosis and treatment* | *BMJ Best Practice*, accessed 27 March 2018, <http://bestpractice.bmj.com/topics/en-gb/985>

to its omission it has not been possible to comment on the outcome of the project in this regard.

## 4.0 Transferrable Lessons

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Results from this study were not confined to those in the data, a number of valuable lessons were also learnt during the preparation and delivery of this social prescribing intervention. These are discussed in the following sections, with others covered in the initial Phase I report.

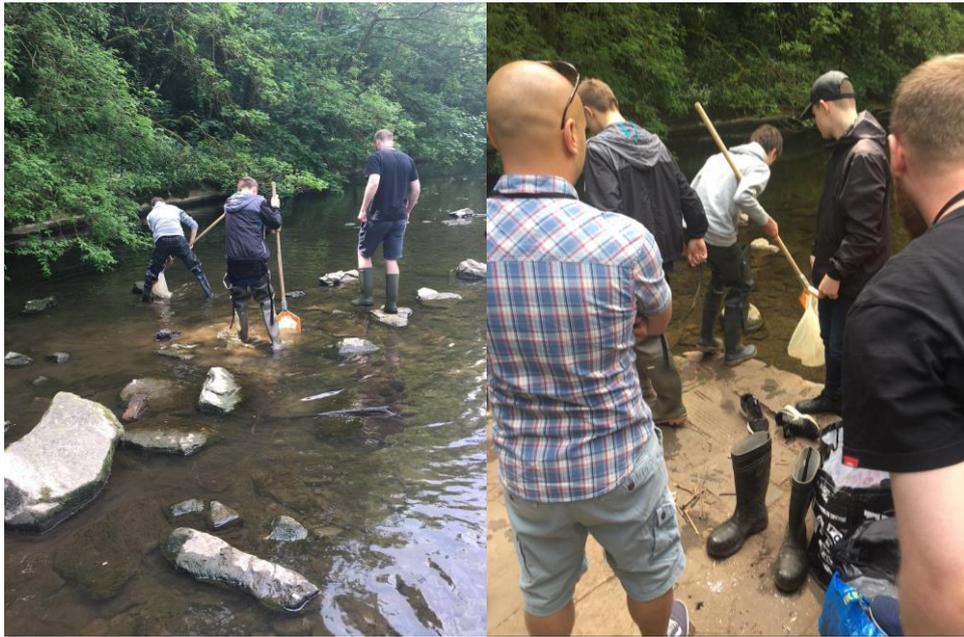
### 4.1 Tailoring of sessions to group requirements

Tailoring the sessions delivered to the group was found to be important. Initial planning had considered running a 2.5hour session for both the adults, and the young people on the basis of trying to cover more than one activity in each session and making the sessions worthwhile for participants. Following discussions with Pathways Learning Centre, a decision was made to reduce the length of the young people's session to 1.5hours in part due to concerns over engagement and attention span and in part due to running the sessions in the afternoon and not wanting to keep them too far beyond the length of a normal school day. Despite this reduction, the sessions did run beyond the length of a normal school day, but the young people were happy to stay and participate in the sessions and this was felt to be a good indicator of enjoyment of the intervention.

In terms of maintaining interest across the programme of sessions, it was felt that it was valuable to use a variety of settings along the river. The programme used a different site along the river Frome each week – introducing the participants to new places which they would be able to visit after the sessions finished. One participant commented that he planned to bring his children to see the new sites he had discovered through being part of the programme.

The mixture of session content was also felt to be sufficient at maintaining interest and continuing learning for both groups. However, a useful lesson is that having adaptable session content can be very important. The river-dipping activity was repeated with the young person's group in lieu of some of the other activities as the session leaders found that it engaged them well and the feedback was that they enjoyed the physical nature of the session and learning about the river ecosystem. A photograph of them participating in this activity has been included in Figure 4-1. It was a positive outcome that the session was so successful in engaging an all-male group of young people given that it is often more difficult to engage males in wellbeing activities.

**Figure 4-1 - River Dipping Activity**



## **4.2 Investment of time in participant recruitment**

Investment of time in participant recruitment was flagged in the Phase I report as an important consideration when designing a social prescribing intervention. Recruitment of participants was not as straightforward as anticipated, with a number of adults expressing an interest in the programme but with greater difficulty in translating these leads into adults attending the programme. Each lead was contacted a number of times before committing to participating and this was time consuming for the programme co-ordinator.

In part, this issue was helped with the development of a clear and succinct information flyer laying out the aims of the programme and what would be involved in participation but it was still felt that greater resource allocation to the front end of the project would have been beneficial. It was also felt that more time should have been allocated to the pre intervention phase as a whole – especially given that the school Easter holidays fell in the time when the programme and participants were being finalised and this limited potential for communicating with them in the lead up to the programme inception.

As mentioned previously – it would be worth aiming to recruit a higher number of participants for future programmes on the basis that there are likely to be dropouts, or individuals who cannot make certain sessions.

## **4.3 Human resource allocation to sessions**

In terms of human resource allocation for the sessions it was felt that less resource than anticipated was required on the day for the adult sessions. In part this was due to not having full numbers at sessions, but it was still felt that session delivery by one member of the rivers trust would be sufficient. The only downside to changing the approach

would be a decrease in potential for one on one conversations with participants and support workers. Over the course of the programme there were a number of disclosures from participants to support workers, and it was felt that the staff to participant ratios facilitated this. By contrast, the young persons’ sessions benefitted from having support workers with their behaviours being more challenging.

One place where greater resource would be of benefit is in the week before the session. Feedback discussions with South Gloucestershire Council revealed that having a person who is a nominated point of contact, with responsibility for getting in touch with all the participants in the week before the session would be beneficial. This could be done via reminder phone calls or emails and by being a point of contact on the day. This finding has been corroborated in other studies of a similar nature and highlights the importance of personal communication when working with vulnerable adults.

Due to the nature of the sessions, provisions such as waders and wellington boots were also required. These were provided by BART, but the resource for organising and transporting such additional resources is worth noting for design of future programmes.

**4.4 Additional funding**

An additional benefit of having completed the pilot project is that there is now a precedent for running such schemes and a much clearer product to promote to future interested parties.

There is already agreement in place between South Gloucestershire Council and the Bristol Avon Rivers Trust to deliver a follow-on programme of the same format.

**5.0 Applying the Learning Elsewhere**

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**5.1 A quick guide to getting started**

Table 5-1 gives a rapid overview of four key issues that a catchment partnership or River Trust should consider in considering the development of a social prescription co-funded by local organisations.

**Table 5-1 Recap of Phase 1 report quick guide to getting started**

Issue	Questions to consider
<b>Know your partners</b>	Are social prescriptions used in the health catchment? What are the health budget pressures and service quality issues which could be addressed more effectively by a social prescription?

	<p>What other social prescriptions are on offer and how are they connected to patients?</p> <p>Is a catchment-based social prescription likely to offer something different in terms of attractiveness or effectiveness to certain patient groups?</p>
<b>Co-design</b>	<p>Are there likely to be cohorts of patients that could be linked to areas where you want to intervene in your catchment?</p> <p>What age groups, support workers and health needs exist for potential target groups?</p> <p>Can you choose locations which it is easy and safe to get patients to?</p>
<b>Explain and reassure</b>	<p>Can you explain exactly what will be involved in the social prescriptions?</p> <p>Can you reassure target groups of patients that their needs will be met?</p> <p>Can you work with partners to ensure that permissions, safety, dietary and confidentiality issues are being managed?</p>
<b>Evaluate</b>	<p>Have you asked for permission to use the Warwick Edinburgh system?</p> <p>Have you linked to locally important measurement and outcome systems?</p> <p>Have you ensured you are establishing a baseline and a longer-term follow-up</p> <p>Have you ensured you are not overloading patients with your evaluation questions?</p>

## 6.0 Conclusions

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In conclusion, this study has provided valuable, practical insight into the delivery of a social prescription connecting people with blue space. As non-medical interventions to improve mental wellbeing continue to gain greater recognition and be used more widely, the lessons learnt through work like this will become increasingly important. Since the inception of this project a number of changes have been seen in the mental health landscape. Work has been published showing that one in four GPs are now regularly using social prescribing to refer patients with social/emotional needs to non-clinical services and that only 6% of GPs responded to the same survey saying it wasn't

something they should be involved in – a 50% decrease on the same survey in the previous year.<sup>9</sup> Meanwhile, a £3 million grant has been announced expanding social prescribing in Scotland and Northern Ireland and its value is being recognised in terms of easing pressure on GPs and reducing workload.<sup>10</sup>

Social prescribing is of relevance to the NHS's drive for keeping people 'okay', and aims to move away from a model of acute care.<sup>11</sup> Interventions such as the one described in this report could contribute invaluablely to preventing the development of mental health illnesses – especially when applied to young people – and reducing future reliance on medical approaches to care.

The results of this work have demonstrated that the wellbeing of adult participants can be improved from being classed as 'poor' to being in line with the population average over the course of a six week intervention, engaging with natural blue space. Significant increases in WEMWBS scores were observed for all adult participants demonstrating improvements in mental health. The qualitative aspects of the data collection gave us reason to believe that these effects would outlast the duration of the intervention with participants planning to continue their involvement with the blue space through volunteering with the Bristol Avon Rivers Trust.

There is a good basis for believing that engagement with the river environment contributed to this change in wellbeing with increases observed in the participant's self-assessed connection to nature over the course of the programme. This is consistent with findings of other work where connection to a natural environment, for example through gardening, improved wellbeing scores.

The link to blue space is particularly important and has the potential to bring about co-benefits. Through working with a Rivers Trust, the programme the participants involved in contributed to long-term river conservation, improving the river environment for others to enjoy. This has not been tested in this work, but in theory it is possible that increases in wellbeing in these target groups of vulnerable adults with poor mental health could contribute to reduced use of anti-depressants which are becoming an increasing issue in terms of water pollution of riverine environments.

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<sup>9</sup> *One in four GPs regularly use social prescribing, survey shows* | GPonline, accessed 27 July 2018, <https://www.gponline.com/one-four-gps-regularly-use-social-prescribing-survey-shows/article/1487838>

<sup>10</sup> *GP practice social prescribing scheme receives £3m lottery grant* | News Article | Pulse Today, accessed 27 July 2018, <http://www.pulsetoday.co.uk/news/commissioning/commissioning-topics/prescribing/gp-practice-social-prescribing-scheme-receives-3m-lottery-grant/20036930.article>

<sup>11</sup> The Mental Health Taskforce (2016) *The Five Year Forward View for Mental Health*, February 2016, <https://www.england.nhs.uk/wp-content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf>

## 7.0 Acknowledgments

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