'A DOSE OF NATURE' NHS PRESCRIPTION/REFERRAL PROJECT: PILOT PROJECT - *Meg Lamond 4/3/16*

TRERAVEN FARM GROUP –EVALUATION REPORT

1.Introduction

1.1. Context

The aim of 'A Dose of Nature' NHS Prescription / Referral : Pilot Project was to gain information to aid design of a pilot trial for a full-scale randomized controlled trial , with the intent to:

(i) Help normalize and simplify procedures for NHS prescriptions / referrals for 'A Dose of Nature' nature connected activity groups as a standard treatment(s) for depression, anxiety and other mental health conditions - alongside current standard options of medication, counselling, CBT, social prescriptions etc. [1] – and potentially linked with similar projects locally and elsewhere in UK.

(ii) Explore which formats of 'A Dose of Nature' activity groups are potentially most effective for which situations . (Taking into account eg. mental health diagnosis, location (rural/urban/coastal …), acceptability to health professionals and to patients, practicality of referral , adherence/retention, evidence of therapeutic benefit, cost in combination with and versus current standard treatments). This would potentially include working out parameters for 'quality control' for format of "A Dose of Nature" groups – eg. minimum level of training / qualifications for group leaders, size of groups, scope of activities, possible rules for patient eligibility and exclusion.

(iii) Gain evidence of therapeutic effect of chosen formats, and collate other pertinent information (re. economics, acceptability, transport, routes of referral; research on benefits of nature contact, wildlife rich spaces in urban areas, Morita Therapy [2] etc.) to use for persuasion of potential grant providers (eg. Cornwall Rural Community Council, Cornwall Community Foundation, Kernow Clinical Commissioning Group in Cornwall) or negotiation of paid contracts (eg. with estate owners for woodland management work, or Community Supported Agriculture farms for horticultural work, or NHS Clinical Commissioning Groups) to cover cost of provision for such groups.

1.2. 'A Dose of Nature' weekly activity group at Treraven Farm

The Treraven Farm weekly activity group was one of three 'A Dose of Nature' formats explored in Feasibility Study The core features of the three formats included in the study were:

(i) outdoor 'nature' setting - woods, nature reserve, coastal

(ii) an official group leader + assistant(s)

(iii) organized or semi-organized group activities

(iv) semi-structured group dialogue within each session

(v) majority of group participants currently suffering from depression and / or other mental health conditions such as anxiety, stress, bipolar disorder, schizophrenia.

The groups differed in type of nature setting, in qualifications and experience of group leaders, in type of activities, in underpinning therapeutic framework, in time-frame and number of sessions, in mixture of diagnoses, in routes of referral.

The 'A Dose of Nature' groups may be considered types of 'Complex Intervention' as they are 'built up from a number of components, which may act both independently and inter-dependently' [3]. The 'A Dose of Nature' Feasibility Study was primarily concerned with gaining information to aid design of a pilot trial - to be followed by a RCT to establish 'both *whether* [the] intervention is effective and *how* it works' [3].

The 'A Dose of Nature' weekly activity group at Treraven Farm started on 17th October 2014, and ran weekly until 24 September 2015, excluding 4 holiday weeks – ie. 46 weeks. The sessions ran for 2 ½ hours a week, and activities were centred on habitat creation (for butterflies, dormice, lizards etc.), woodland management, basic construction, painting (decorative and artistic), clay modelling (mostly animals), collecting firewood for children's events and making campfires for tea.

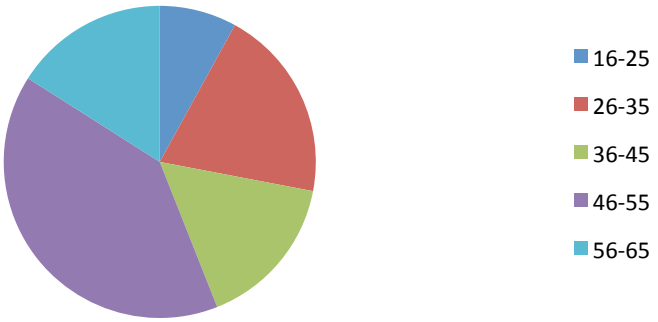
It was intended to offer a flexible and diverse range of activities, mostly connected to wider projects at Treraven Farm, such as developing spaces for children's education activities and improving the site for nature conservation. It was felt that an emphasis on activities that were connected to wider purposes of the community rather than activities solely intended for therapeutic benefit of the individual would, perhaps paradoxically, be more therapeutically effective. This approach, as well as the close contact with nature, matches the principles of Morita Therapy [4]

2. Summary of Observations

2.1. Ages, Gender, Attendance & Retention

In total 25 different people attended the weekly sessions, including the Mind volunteer assistants, but excluding support staff and staff visitors from participating organizations (The Gaia Trust, Restormel Mind, Rethink Cornwall, Pentreath Ltd, Cornwall Foundation Trust). The mean attendance per person over the 46 weeks was 12 sessions; the median attendance was 6 sessions, and the interquartile range 3-20.

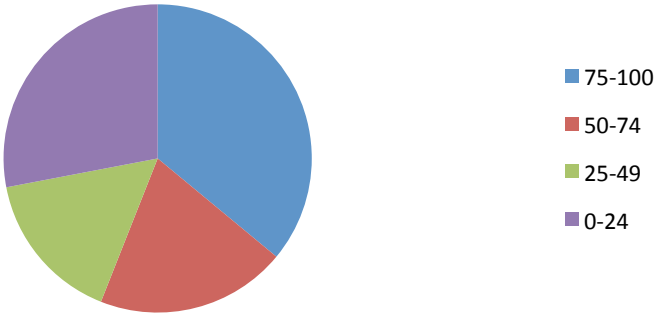
Figure 1. Age range of participants



Retention was fairly high – only 6 out of 25 participants did not continue attending the group after the feasibility study period. The reasons for leaving were: 3/5: for apprenticeship/training, 1/5 for illness + school run, 1/5 for illness + employment, 1/5 unknown.

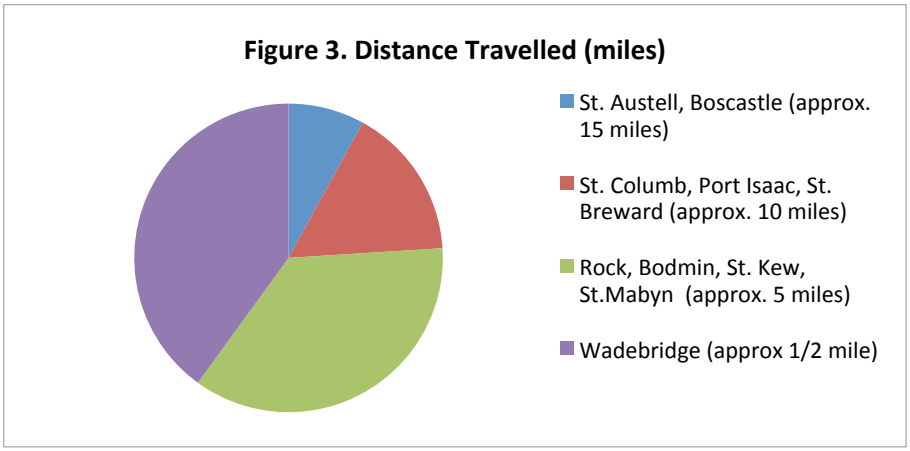
Approximately half the participants were over 45 (Figure 1.) and over 2/3 were male. Approximately 1/3 of participants attended over 3/4 of sessions between their first and last session (counted no. 46 as last session for those who continued attending after the feasibility study period), and 1/3 fewer than 1/4 of sessions (Figure 2.). Mean weekly group size over the whole period was 6 people, and this varied

Figure 2. Frequency of Attendance (%)

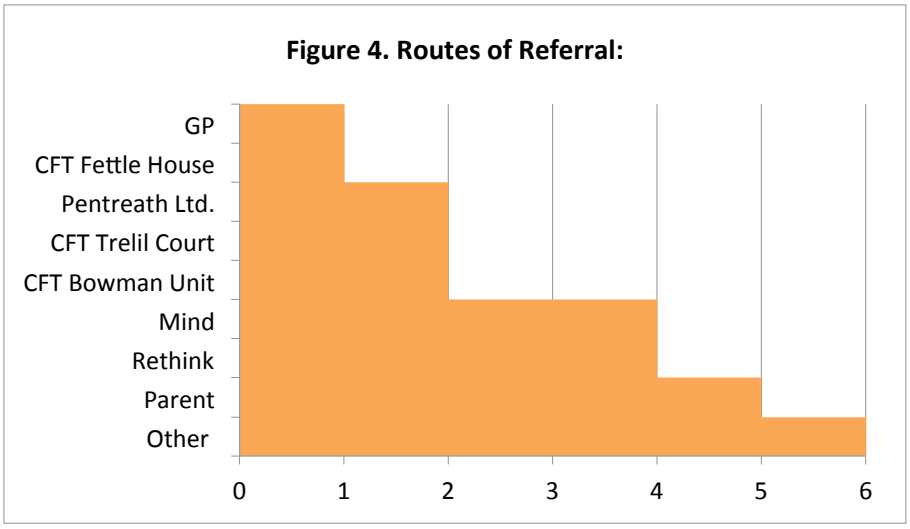


from 3 – 10.

Fewer than 25% of people attending travelled 10 miles or more; most came from Wadebridge, nearby villages and Bodmin (Figure 3.). Of these one cycled, eight came on foot, three came on buses, four were driven by parents or spouses, and the rest drove.



2.2. Routes of Referral (Figure 4.) Six people were referred directly via NHS services (GP or Cornwall Foundation Trust) and six were referred via. Rethink or Pentreath Ltd. , ie. indirectly via NHS (various combinations of agoraphobia, post-traumatic stress disorder, depression, anxiety, psychosis, bipolar disorder, schizophrenia); Four people participated via. Restormel Mind: One as an "ordinary" volunteer, two as volunteers but also suffer from self-diagnosed anxiety or depression, and one of who is a NHS mental health patient with brain injury and depression.



The six youngest participants (16-28 years old) were referred by a concerned parent or close friend; of these, one was additionally referred by their GP (psychosis, anxiety and opiate addiction), one by Rethink (psychosis and depression); two others currently receive NHS mental health treatment (bipolar disorder, depression); one suffers from social anxiety and one was simply bored in the summer holidays. One person self-referred after seeing posters in town, and was suffering depression and social isolation after divorce. The remaining people were already volunteers at Treraven Farm who enjoy coming out to work physically in nature, as suffer stress from their ordinary employment being office or classroom based, one of whom is a current NHS mental health patient also (bipolar). In total, 16 people were current NHS mental health patients, ranging in intensity from simple medication for depression to ex-secure psychiatric unit.

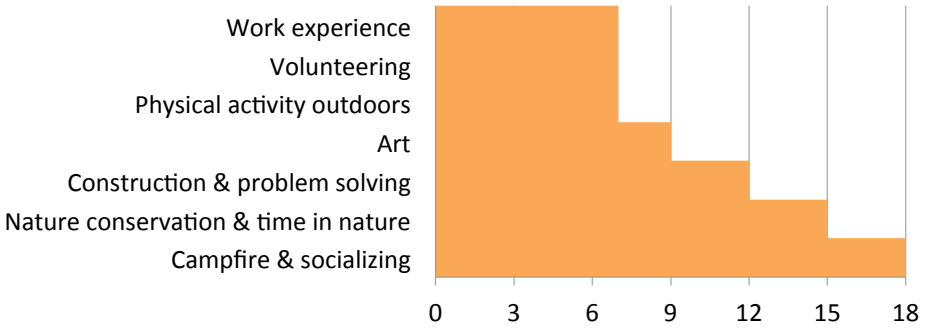
It appears that referral through a variety of routes is effective, but that there is also scope for further development eg. to recruit higher numbers directly via GPs (particularly for mild to moderate depression and anxiety, who are likely still able to work, and so are not eligible for referral to other mental health organizations) and potentially via Community Mental Health Teams also. Relationships with the NHS CFT and third-sector mental health organizations making referrals existed already at the start of the project, and had taken around two years to develop.

2.3. Motivation for and Barriers to Attendance

Approximately 2/3 of participants gave 'nature conservation & time in nature' and 2/3 'campfire & socializing' as among their three primary reasons for regular attendance of the weekly groups. Half gave 'construction & problem solving', and approximately 1/3 each 'Art', 'Volunteering' (ie. wanting to help other people and to help develop community projects), 'Work experience' (particularly the younger people) and 'Physical activity outdoors' (particularly for whose every day work is indoors). (Figure 5.)

We swapped the group to the afternoon from June, due to several people saying they preferred afternoons to mornings due to medication hangovers or bus time-tables from villages. The mean group size increased from 5.5 to 6.9 following this change, however this time also coincided with the summer weather so may not be significant.

Figure 5. Primary 3 reasons for attendance



2.4. Warwick-Edinburgh Wellbeing Scale

Completed pairs of Warwick-Edinburgh Wellbeing Scale[4] questionnaires were collected from 8 participants. The mean score actually dropped slightly from 51.5 to 50.5. Two people happened to have unusually severe external circumstances at the time of the second questionnaire: one had serious fall from a horse in the summer with long term injury, the other was having difficulty coping with suddenly increased severity of her daughter's bipolar disorder. When these are excluded, the mean score rises slightly from 50 to 50.5.

For one of the people filling the questionnaire in particular there appeared a mismatch between the scores and their situation. At the start they had been extremely frustrated and suffering depression due to prolonged period of failing to find employment. Directly networking from 'A Dose of Nature' project, they had found employment they were talking about in a very enthusiastic and happy way at the time of the second questionnaire, and yet the score was decreased from 57 to 55.

Another person (ex- secure psychiatric unit) appeared to resent to intrusion of questionnaire, or were wary to give personal information, and ticked 5 for everything both times, so scored maximum 70.

For evaluating and developing future 'A Dose of Nature' groups it may be useful to combine formal interviews and observations with the questionnaires, to use an mixed method approach suited to evaluating complex interventions[5], as the scores from Warwick-Edinburgh questionnaires alone lacked useful detail for development, and were somewhat ambiguous or inconclusive, partly as scores depend so highly on circumstances external to the group too.

2.5. Quotes from Participants

'I love it out here. I always sleep really well after I come out.' - G.R

'For me I'd say it's as much about physical exercise as painting as conviviality as getting out of town into wild nature spaces. It's all good!' – J.W

'It feels like a luxury to me … to make tea on fire, to lie under trees and sky, the friendly talking and joking. Sometimes I hardly can believe it is real …' - G.E

'We often help set up an area for the families to enjoy … a treasure chest of delightful, rewarding and fulfilling memories.' – D.B

'It helps me to structure my weeks and it feels good to do physical work that is useful.' - S.B

'I like the openness to developments and that new things are always happening here. It is exciting to be part of that.' – J.W

'I needed a new real and challenging project to help take me out of anxiety and depression (but not pressure of work deadlines yet). It is exciting and useful that I can make my own projects in my own time, and experiment to learn new technical skills here.' – P.S

3. Conclusions & Recommendations

It appeared that referral via connections with Rethink Cornwall, Restormel Mind, Cornwall Foundation Trust and Pentreath Ltd. (which were already in place before 'A Dose of Nature' project started) were effective at reaching people with relatively severe and enduring mental health conditions, but that more effort is needed to establish routes of referral directly via GPs for mild to moderate mental health conditions. Generally people visited Treraven Farm first with their support worker (Pentreath Ltd., CFT) or an existing supported group (Rethink, CFT) and then after one or a few supported visits, were at ease to attend by themselves. This appeared to work well, as people did continue attending groups.

The local GPs were open and positive about the groups, but there was only one referral resulting in people attending the group. This needs further work , to find out if, and if so how this can be a practical route of referral.

It might be that the lack of support workers for people referred directly from GP is a barrier, that people are shy or feel anxious to make initial contact of their own accord (this was suggested by GPs at a meeting). It may be effective for GPs to seek permission from referred patients to pass contact details to 'A Dose of Nature' facilitator to initiate contact: this needs testing.

There were questions over whether it would be better to make separate groups for younger and older people, as some of young people were quite innocent or naïve, or were trying to keep hope of finding a way out of their difficulties - whereas many of the older were more wordly wise, philosophical, humorous - some talked freely of extreme or tough situations they had been though, which could be distressing for sensitive or anxious younger

people to hear. There was communication and concern from parents over this matter. I feel as a priority, a separate group ought to be established for younger people, of say 16 -30. Some of the younger people were also keen to have a more formalized programme of "work experience" and for the group leader to potentially give references.

The mix of activities appeared to work well, and be part of the reason for high retention. Additionally, people appeared to like being part of broader projects that were connected with nature conservation and education of children too, that the group was not contrived purely as therapy.

There appears scope to further develop variety of activities to benefit a wider population of people. It could be particularly beneficial to incorporate more activities, perhaps gentle crafts or horticulture, suitable for people with physical disabilities: Very few of the activities are suitable at present, and people with physical disabilities often also suffer from social isolation, depression and lack of contact with nature. To combine these physically less demanding activities as part of current format of sessions would require an additional facilitator. Alternatively, they could be offered as separate sessions.

Lack of public transport from villages was mentioned as a barrier to attendance for people who would otherwise like to attend the groups. Medication hangover was mentioned as a barrier to attendance of a morning group by several people also. It would be helpful for people with communication difficulties to be able to attend with support workers or carers: the one person who left for unknown reasons was deaf and without a support worker.

If it is desired to target people with primarily mild or moderate depression (as indicated in original proposals for 'A Dose of Nature' project), a weekday group is probably not suitable as many of these will be working and unable to attend. On the other hand weekends may be difficult for those with families, unless the activities can perhaps include the whole family. Evenings are not really suitable for such an outdoor group, except during summer.

One person found happy employment and one highly focussed, useful career mentoring directly from other members of the group. It appears there is scope to develop this aspect, and that it is useful and beneficial to mix people with and without mental health diagnoses for this reason of informal mentoring and networking, taking care that atmosphere of group remains supportive.

References

[1] NICE: **Evidence Update 13 – Depression.** *NHS Evidence* 2012

[2] Morita, S.: **Morita Therapy and the True Nature of Anxiety-Based Disorders (Shinkeishitsu).** *State University of New York Press,* 1998

[3] Datta, J. & Petticrew, M.: **Challenges to evaluating complex interventions: a content analysis of published papers.** *BMC Public Health* 2013, **13**:568.

[4] Stewart-Brown, S. & Janmohamed, K.: **Warwick-Edinburgh Mental Well-being Scale(WEMWBS): User Guide.** *Warwick Medical School, University of Warwick,* 2008

[5] Richards, D.A. & Hallberg, I.R.: **Complex Interventions in Health: An Overview of Research Methods**. *Routledge,* 2015