CHIEF SCIENTIST OFFICE

CODE: HIPS/19/51

RESEARCH PROJECT BRIEFING

Farming Minds. Improving the mental health of farmers: what types of remote intervention and support are acceptable and feasible to best support improved outcomes?

AIMS

This study aimed to establish farming community preferences for interventions to support their mental health/wellbeing and at the same time establish their views, up-take and acceptability of two possible interventions: one delivering emotional and social support (including financial advice) and the other an on-line CBT-based therapy +/- telephone support, which has been specifically developed for the farming community. Some participants were given both interventions (combined). The CBT-based intervention was also available in booklet form but not tailored to farmers. The study also aimed to identify a 'best-option' intervention for a future trial of its effectiveness and to assess the potential to recruit farmers to engage with the different mental health interventions and complete study outcome measures in preparation for a future large-scale trial.

KEY FINDINGS

- **We successfully recruited 32 participants (80% of our target n=40)**. 13 participants screened for eligibility did not meet our inclusion criteria (69% eligibility) but 3 were subsequently included (2 as borderline and 1 as a preventive request).
- Face to face recruitment by someone with recognised farming/rural links was the most successful mechanism. Engaging farmers in research is possible but requires specific efforts.
- **Retention rates were very high**: 26 of the 32 participants (**81%**) provided follow-up quantitative data at 3 months and 16/22 (73%) completed 6 month questionnaires with 10 (31%) not yet eligible for 6 month follow-up by the end of study (due to Covid-related project delays).
- **More farmers indicated a preference for the CBT-based intervention than the emotional/social support intervention or even both interventions combined.** Initial random allocation was: emotional/social support (n=10), on-line/booklet CBT +/- telephone support (n=10), combined (n=12). Allowing for a preference to be expressed resulted in final allocations of: emotional/social support (n=7), on-line/booklet CBT +/- telephone support (n=17), combined (n=8). 23/25 receiving the CBT intervention opted for telephone support. 5/25 requested printed booklets in addition/as an alternative to on-line CBT, although these were not tailored to farmers.
- **All interventions showed an overall positive change in mean PHQ-9 scores** with the CBT-based intervention showing most improvement (as a feasibility study this study was not powered to establish this difference as statistically significant).
- **Engagement with all interventions was acceptable** but could be improved. This was often hindered by a lack of time but also 'too much on top of everything else'. Personal/telephone support was valued, especially to begin with.

WHAT DID THE STUDY INVOLVE?

Methods: The study was conducted in 3 stages.

Stage 1 a qualitative interview study of farming community representatives to establish preferences for help seeking and how to engage farmers.

Stage 2 a study of the acceptability of, and preferences for, 2 types of interventions (a telephone accessed social support service, an on-line/booklet CBT based intervention (+/- telephone support) or a combination of both) including a feasibility study of the potential to recruit and retain farmers in a potential trial. Data collection included recruitment, retention and outcomes completion rates as well as participant demographic information and completion of the Patient Health Questionnaire (PHQ-9), the 3-item Sense of Coherence, the EQ-5D at baseline, 3 and 6 month follow-up. Use of/adherence to interventions was also collected through service level data and website usage data.

Stage 3 a qualitative study of participants views of the interventions they received.

The study was developed in consultation with members of the farming community and the national Rural Mental Health Forum who were full project partners. Widespread advice from the farming community was a continual feature of this study throughout, facilitated by Scotland's Rural College (SRUC).

WHAT WERE THE RESULTS AND WHAT DO THEY MEAN?

Recruitment and retention: pre-established stop/go criteria indicated a 'green light' for a future trial. We recruited >70% of target (80% achieved, 73% when removing the 3 'ineligible' who were still entered into the study), ≥40% of contacts were eligible (62% eligible) and <30% attrition (only 4 participants withdrew (12.5%) , with a further 2 (6%) 'unable to contact' leading to overall attrition of 16% at 3 months and 27% at 6 months).

Engagement with interventions:

Of those receiving the combined intervention: 3/5 respondents reported following advice/course to a small degree and 2/5 mostly/always followed advice/course and all completed the course 'to a small degree'. On-line usage data from 3/7 participants showed an average of 9 modules accessed.

Of those receiving telephone accessed social support: 4/5 reported following advice/course mostly as instructed, 1/5 to 'a small degree'. 2/5 mostly completed the sessions that were offered, 2/5 to 'a small degree' and 1/5 'not at all/not much'. The mean number of hours/minutes provided by the telephone accessed social support service was 4.17 (median 2.15) and the average number of contacts overall was 29 per participant (median 23). The majority (4/6 responders) felt they had followed the advice received.

Of those receiving the CBT-based intervention only: 3/13 reported following advice/course to a small degree, 5/13 mostly/always followed advice/course, and 5 reported they did not follow advice/course. 4 completed the course 'to a small degree', 5 completed 'mostly as instructed' and 4 reported 'not at all/not much'. On-line usage data from 9/13 participants showed an average of 6 modules accessed.

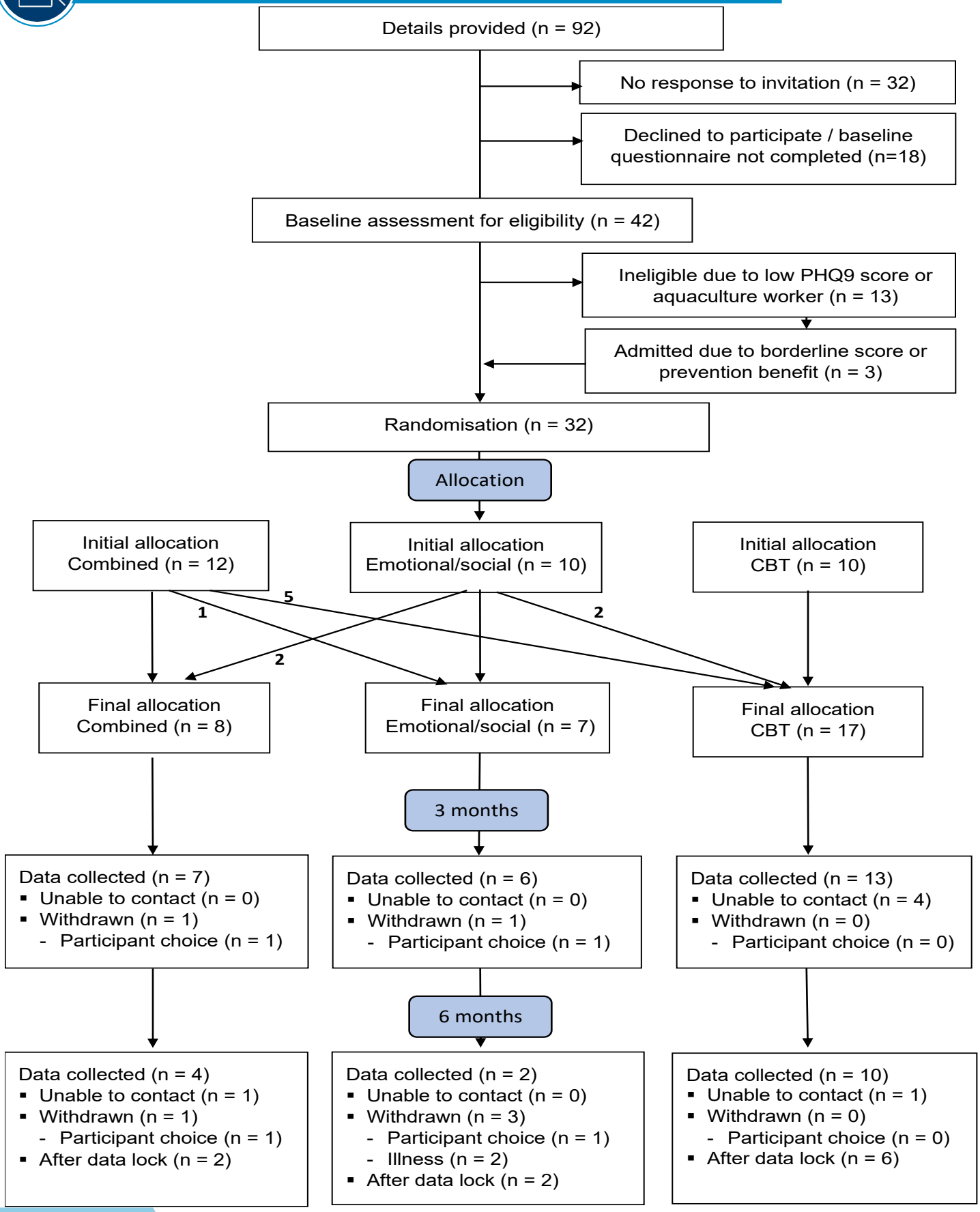
Outcomes:

Although not powered for statistical significance all 3 interventions showed positive improvements on PHQ-9 scores as follows: Combined intervention mean baseline score of 18.1 compared to 12.0 at 3 month follow-up (mean change -6.1). Telephone accessed social support mean baseline score of 11.3 compared to 6.7 at 3 month follow-up (mean change -4.7). CBT-based intervention mean baseline score of 11.8 compared to 4.5 at 3 month follow-up (mean change -7.3).

Qualitative findings: More positive support was expressed for the CBT based intervention with telephone support. 5 farmers requested the booklet format. However, it was not for everyone and engagement with materials was selective. The more practical support offered within the social support intervention was valued, as this often helped with making difficult business decisions.

Optimised intervention: An optimised intervention for the farming community (based on qualitative feedback and study data on engagement with the interventions and delivery modes) would be a combination of supported (and possible face-to-face) start-up session(s) alongside a CBT-based intervention with more video and audio recorded content reflecting farmers and farming lives/problems. Adjunct practical support for farm related problems could also be offered where needed.

Figure 1 Consort Flow Diagram



WHAT IMPACT COULD THE FINDINGS HAVE?

- This study provides evidence on how to support farmers/the farming community by confirming the acceptability of a supported CBT intervention tailored specifically for the farming community
- Policy makers and the NHS can use this information to help tailor their supports to the farming community.
- These findings can be used to support the development of a full-scale trial of a supported CBT intervention tailored specifically for the farming community.

HOW WILL THE OUTCOMES BE DISSEMINATED?

A Workshop event involving Scotland's Rural Mental Health Forum, Scottish Agricultural Consulting (SAC), RSABI, NHS Highland, and farmers, Vets and other members of the farming community (c 25 participants) will be held to disseminate and further discuss the implications and 'next-steps' for this study.

A copy of this report will be provided to all participants including ineligible individuals, and those who expressed an interest in the study but declined to participate.

Findings will be presented at one international conference and one UK conference.

One paper is currently being prepared which presents the qualitative findings on farmers' preferences for helping them to cope with mental health problems. Another paper will report the findings from the preference study on recruitment, retention, preferences and outcomes.

CONCLUSION

An optimised intervention for the farming community would be a combination of supported (and possible face-to-face) start-up session(s) alongside a CBT-based intervention with more video and audio recorded content reflecting farmers and farming lives/problems. Adjunct practical support for farm related problems could also be offered.

A full-scale trial of a supported CBT-based intervention tailored specifically for the farming community is feasible with reasonable costs but does require intensive personal contact with credible recruiters with farming knowledge.

RESEARCH TEAM & CONTACT

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