Author's response to reviews

Title: Facilitating adherence to physical activity: exercise professionals' experiences of the National Exercise Referral Scheme in Wales. A qualitative study

Authors:

Graham F Moore (MooreG@cardiff.ac.uk)
Laurence Moore (MooreL1@cardiff.ac.uk)
Simon Murphy (MurphyS7@cardiff.ac.uk)

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Author's response to reviews: see over
Dear Dr Rahkonen & Mr Dizon,

Thank you for inviting us to submit a revision of our manuscript entitled ‘Facilitating adherence to physical activity: exercise professionals’ experiences of the National Exercise Referral Scheme in Wales. A qualitative study’. We welcome the reviewers’ largely positive assessment and their constructive criticism, and feel that addressing the points raised by reviewers has improved the clarity of the manuscript.

As requested, we have added in the registration number of the NERS trial at the end of the abstract. We have also referred to the RATS guidance in revising the manuscript and responded to reviewers’ comments in light of these. Both reviewers felt that we offered a strong ‘Rationale’ for the study and that the chosen methods were ‘Appropriate’. Referee 2 also expressed no concerns relating to ‘Transparency’ or ‘Soundness of interpretation’, indicating that methods, findings and conclusions were all appropriate and well described. We have however tried where possible to take discretionary revisions suggested by this reviewer into consideration.

Referee 1 felt that some additional material was needed in order to enhance transparency and confidence in the soundness of interpretation. We have attempted to incorporate all essential and discretionary revisions suggested by this reviewer, with changes including addition of the semi-structured interview questions, expansion of our description of the analytical approach, and inclusion of a small number of additional quotations to illustrate the grounding of statements in the data.

A point by point response to reviewers comments is listed below. Within the attached manuscript, the main changes in response to reviewers comments are highlighted using tracked changes.

We hope that you will now consider the manuscript acceptable for publication in BMC Public Health. If you have any further queries, please don’t hesitate to contact me.

Yours sincerely,

Graham Moore
Referee 1
The title and research questions are clear and relevant to research in this field. A qualitative method is appropriate as the aim is to explore experiences and obtain professionals’ views. The background section cites a wide range of previous literature and gives a good account of the history of research and practice in ERSs and provides justification for how this research fills a current gap in the knowledge base. The research offers some interesting insights, is thought provoking and suggests some useful areas for future research and policy development.

- We thank the reviewer for these largely positive comments regarding the rationale presented for our study and the appropriateness of our chosen methods. Point by point responses to all essential and discretionary revisions are listed below.

Essential Revisions
Line 52 of abstract. “Effectiveness of emerging activities to support the emergence”. I wasn’t clear what ‘emerging activities’ are. Also the use of emerging and emergence in same sentence would be best avoided.

- This line has been clarified and modified to ‘The effectiveness of emerging activities, such as post-scheme maintenance classes, in fostering long-term social networks supportive of physical activity deserve attention.’ We agree that this sentence was not as clear as it could have been.

Line 50 of abstract. The authors conclude that “training should pay sufficient attention to providing the skills to meet patients’ interpersonal support requirements.” This implies that this currently is not the case. However, I could not see too clearly how this conclusion arose from the qualitative data. Lines 509-510 explain that ‘some expressed a need for further training’ but this didn’t seem to be supported by a direct quote in the results section. From the quoted extracts provided I didn’t get the sense that the professionals were struggling to be able to support patients interpersonal support requirements or that they felt ill-equipped to do this. The examples provided showed on the contrary that the professionals were good at recognising and supporting patients’ interpersonal support requirements even if they found this challenging / found it uncomfortable. If this conclusion is indeed grounded in the data, quotes from the data demonstrating that there is felt to be a gap in current training / skills deficit should be included.

- We have clarified this sentence to state that ‘As well as providing the knowledge to advise patients on how to exercise safely given their conditions, professionals’ training should focus on providing skills to meet the interpersonal support needs of patients, particularly where ERS are used as a means of improving mental health outcomes’ The additional interpersonal support needs of mental health patients, and variability in professionals’ confidence in meeting these needs, are discussed throughout the results section. Although a perceived need for additional training in dealing with mental health patients was described in the text, we did not include a quotation to illustrate this view. We have now added a quotation which illustrates this point, and made it more explicit in the accompanying text.
Line 171 and 172 explain that 1 professional missed 2 appointments whilst 2 did not reply. Was any attempt made to follow up those who chose not to participate to establish why? Is it likely they would have divergent views to the majority?

- We have now added in a line stating that ‘Three attempts were made to make contact these professionals, before they were classed as non-responders.’ We were unable to obtain reasons for non-participation. However, although we accept the reviewer’s point that the views of these non-responders perhaps differed from those of responders, the study interviewed 93% of professionals invited.

Data collection line 177 – semi-structured interview schedule. It would be good to include the interview schedule as it would help the reader to understand the extent to which the discussion was guided / left open ended. For example, in results section line 268 ‘more than a third of professionals also identified perceived socioeconomic variations’ – was discussion of socioeconomic variations prompted by the interview schedule or only spoken about if it arose spontaneously from the interviewee? The fact that some respondents didn’t identify socioeconomic variations was this because they didn’t think it was a factor in uptake and adherence when prompted to consider it, or because they just hadn’t thought to discuss it because it wasn’t prompted by the interviewer?

- The discussion was relatively open-ended, and in most cases where we have used semi-quantification (for example describing the finding that almost half of interviewees identified a distinction between patients referred in or patients who sought the scheme in terms of their motivations), this largely indicates that the point was not discussed by other professionals, rather than that other professionals expressed an opposing view. For example, in relation to the specific example cited by the reviewer of perceived socioeconomic patterning, interviewees were not explicitly asked about their views on socioeconomic patterning. Instead, socioeconomic factors were commonly referenced where professionals were asked whether there was anything about their area that they felt made it easier or harder to implement the scheme than it might be elsewhere. This is now clarified in the results section, and a table added including interview schedule topics and examples of prompts. The inclusion of the schedule in a table also allows us to shorten our description of it in the methods section.

Soundness of interpretive approach. It might be best to get the view of an experienced qualitative researcher here as to whether the description of the methods used is sufficient. Whilst the process of analysis appears sound and the ‘inductive thematic approach’ appears to be followed the analysis section is quite brief. The detailed process for how each transcript was explored to draw out the emergent themes isn’t expanded upon in detail.

- There is a slight difference in perspective here between the two reviewers, with the Referee 2 stating simply that the methods and thematic analysis are both well described. We have however expanded our description of the process of coding data and generating themes in the analysis section.

Lines 478-479 in discussion and lines 270-273 in results lists the reasons given by respondents for lower engagement in poorer areas. It would be good to see how these
points were grounded in the data. For example, the quote from respondent 6 (lines 274-278) doesn’t mention financial resources, which is one the factors listed, so a quote to support this statement would have been useful to demonstrate how the finding is grounded in the data. For example, was there a view that the £1 charge was too much to attend, or that limited financial resources meant people were unable to buy the necessary clothing / travel to the venue / or lack of financial resources had an influence by some other mechanism?

- We were conscious in drafting the paper of its length. Hence whilst we included extensive quotes to illustrate the perspectives we described in the text (quotes make up approximately 25% of overall manuscript length), there were a small number of points indicated in the text, such as the one mentioned by the reviewer and the point relating to training for dealing with mental health patients as discussed above, for which a quote was not included. A quote to support the statement relating to the role of financial resources in influencing participation in physical activity during the scheme and beyond is now added on page 13. We agree with the reviewer that this assists the interpretation and improves the transparency of this specific finding.

The participants selected are the most appropriate to provide access to the type of knowledge sought by the study. The sample strategy was also appropriate. However, it wasn’t made clear why all 41 professionals were asked to take part – did the authors feel a smaller number would not ensure a cross-section of views? Did they have grounds to believe the respondents would give very different views across the 12 health boards? I query this because, given the in depth nature of qualitative analysis 38 transcripts is a large number and there may have been a trade off between the depth of analysis afforded to each transcript vs the breath of responses given by analysing a large number of transcripts.

- The 12 areas involved in the NERS trial all had different histories of ERS delivery, with most having local schemes prior to the trial, following different sets of protocols. Hence, the nature of change represented by the move to national standardisation differed between areas. In addition, in some areas, teams of professionals included some retained from previous schemes, and others newly appointed to deliver NERS. We have not disaggregated views across these differing subsets of professionals, out of concern that doing so may begin to compromise the anonymity of individual professionals. However, it was considered important to represent this diversity of experience. We have now made this point in the section labelled sampling and recruitment. The overall number of interviewees (38) is identical to the number of qualitative semi-structured interviews conducted in a similar study previously published in BMC Public Health, examining experiences of ERS from patient’s perspectives (Schmidt et al. 2008).

There was one example in the analysis and presentation of a negative or deviant case (lines 216-221). Did this mean that the views expressed were generally very consistent across respondents in the main? Another example of a negative/deviant case not highlighted as such in the text would be a direct contrast of the views of many, represented by respondent 8 (lines 250-252) who is explaining mental health patients are more likely to drop out of the programme compared to respondent 25 (331-334) who explains, with support, mental health patients are more likely to stick
at the programme. This divergence of views is mentioned in the discussion (line 508) but not laid out explicitly in the earlier section.

- We have slightly revised the text in the results sections to emphasise more clearly where views relate to widely expressed or divergent views or to deviant cases (see page 3 – response to comments regarding perceived socioeconomic patterning). In relation to the specific finding identified by the reviewer, professionals typically agreed that engaging mental health patients was particularly challenging. However, by contrast to the view expressed by some professionals that mental health patients were more likely to drop out, others (such as respondent 25) felt that they had developed ways to overcome this difficulty and effectively engage mental health patients in the scheme. Hence, while there was a widely held view that mental health patients faced additional barriers to participation, professionals varied in their perceived success in overcoming these challenges. We have slightly revised the text surrounding these quotes to clarify this point. As discussed, we have also included an additional quote illustrating the perceived need for additional training to meet the needs of mental health patients, expressed by several professionals.

A few suggested changes to the written English:

Line 26 of abstract – this is first mention of NERS so this is where the abbreviation of the term should first appear in brackets, instead of on line 29 of abstract

- This alteration has been made

Line 35 of abstract and line 222 suggest adding word ‘responses’…“Hence professionals, [responses] sometimes focused upon the need …’ I was unclear on first reading whether ‘professionals sometimes focused’ referred to the responses they gave to in the semi-structured interview of actions they took when working in the field.

- ‘professionals sometimes focused on’ has now been altered to ‘professionals sometimes described’. This clarifies that this refers to responses in interviews, whilst using fewer words than the original sentence.

Line 145 – MI – needs to be written in full before abbreviation.

- This alteration has been made. The full phrase was written out on the next page, which due to later editing was no longer the first mention of MI. We thank the reviewer for pointing this out

Line 156 – take out ‘however’

- This edit has been made

Line 554 – should be ‘emphasise’ not ‘emphasises’

- This typo has been corrected. We thank the reviewer for pointing this out
• Discretionary Revisions

Results lines 197-204 would be clearer summarised into a table of themes and subthemes (the sub-themes labeled 1a, 1b, 2a, 2b, 2c and 2d).

- We have made this alteration which we agree adds clarity to the presentation of the results section. We thank the reviewer for this suggestion.

Line 29 in abstract – ’12 local health board areas’ – is this all the health boards taking part in the NERS? Later in line 163 in methods seems to suggest 12 is the total number. Therefore, to stress breadth of sample coverage might be good in abstract to emphasise e.g. ‘38 exercise professionals across all 12 local health board areas in Wales delivering NERS took part in a …’

- NERS was implemented in 12 areas who participated in a randomised trial, before later being rolled out to all 22 LHB areas in Wales. This has now been clarified in the section describing the intervention, although there is insufficient space to allow this in the abstract.
Responses to Referee 2
We thank Referee 2 for their positive summary of our manuscript. Whilst this referee recommends no ‘essential’ revisions, some useful discretionary suggestions are included, which we have attempted to incorporate where possible.

Discretionary Revisions
These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

Some questions and recommendations

Background describes that 1/3 patient do not attend a first appointment and completion rates are 12-50 %. (66-68). Is it possible to make up the information by explaining reasons why patients had not come and had professionals any contact or discussions with them afterwards.

- The figures identified by the reviewer relate to patterning identified in a systematic review of the effectiveness of ERS and a subsequent observational study cited by us. Although as described later in the introduction, several studies have attempted to profile adherers and non-adherers, there is a relative paucity of data relating to reasons for attendance/non-attendance. We have now emphasised the need for research to go beyond describing patterning and towards explaining it on page 5 in the introduction, in describing the rationale for our study.

When the exercise professionals took part in the telephone interview, did their answers connected with persons, whom they had met in exercise referral process or was it possible for them to think and answer more general.

- Exercise professionals were not asked to identify specific case examples and consider the experiences of these patients, but were asked to consider variability between groups at a more general level. The inclusion of the interview schedule, as requested by the first reviewer, clarifies this issue.

Sample and procedures (162-173) describes that 38 professionals took part in interview. How long history professionals had as an exercise instructor? How many participants each professional had met in referral process and in exercise groups?

- As now described under sampling and recruitment, most areas retained professionals from previous local schemes, whilst also appointing some staff new to ERS. However, we did not systematically capture details of professionals previous work history. Although we do not have full breakdowns of the number of patients served by each professional, we have added a sentence into the sampling and recruitment stating that ‘Professionals on average, came into contact with approximately 10 new patients each month, and had implemented NERS for 6-12 months at the time of interview’.

How many of the interviewed professionals had met or tutored mental health patients in referral process? In results mental health is especially connected with theme 2 and comprised subthemes (201-204).
Mild anxiety and depression were among the key reasons for referral within the NERS trial, and all exercise professionals would therefore have worked with mental health patients at some point in the scheme. This is now clarified in the description of the intervention, which includes examples of reasons for referral.

One subtheme in theme 2 is social networks (394-441). Fostering social networks facilitates uptake, adherence and support long-term behavioural change. Some persons don’t like group activities and some join the group only for physical activity without need for social network. Could it be possible in discussion to reflect, what kind of exercise counselling, physical activity programs and actions should be developed to enhance versatile physical activity on population level.

It is perhaps beyond the remit of this manuscript, which aims to provide an in-depth insight into one form of targeted intervention, to be able to make strong assertions regarding what programmes and actions should be developed to enhance physical activity at the population level. We have however added an acknowledgement into our conclusions that the group model may not suit all patients, stating that ‘Though some individuals may access ERS largely for the advice of an instructor without the need for wider social support, for many patients, provision of explicit opportunities for social interaction through patient-only group classes offers a means of lessening anxieties and assisting social assimilation into the exercise environment.’

1. Is the question posed by the authors well defined?
   This is the qualitative survey on facilitating adherence to physical activity. The data was collected in the National Exercise Referral Scheme in Wales. The posed questions by the authors were well defined.
2. Are the methods appropriate and well described?
   The methods (semi-structured telephone interview and thematic analysis) are appropriate and well described.
3. Are the data sound?
   The data are sound.
4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   The manuscript is adhered on the relevant standards for reporting and data deposition. The thematic analysis and “anonymous quotations” illustrates well the research perspectives and the real world.
5. Are the discussion and conclusions well balanced and adequately supported by the data?
   The discussion and conclusions are well balanced and adequately supported by the data.
6. Are limitations of the work clearly stated?
   Limitations of the work are clearly stated and deliberated in discussion.
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes they do.
8. Do the title and abstract accurately convey what has been found?
   The title and abstract are informative and accurately express results.
9. Is the writing acceptable?
   No further points to address. We thank the reviewer for this largely positive overview of the manuscript.