Author's response to reviews

Title: 'Let's Get Moving' : Promoting Physical Activity in Primary Care

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Author's response to reviews: see over
Response to Reviewer 1. Philip Van der Wees

1. The reviewer suggested that both the methods and results sections lack information on the qualitative data collection. In the methods section details should be added on the number of health professionals who were interviewed (via the focus group and by telephone).

   We note this concern and in the methods section we have added details on the number of practitioners who attended the focus group and the number of telephone interviews that were undertaken [lines 156 – 163].

   The reviewer also felt that the results and discussion would benefit from more details explaining the practitioners’ subjective appraisal of patient’s appropriateness for LGM and perhaps the barriers to discussing physical activity with patients.

   We have expanded both the results and discussion to include more details on the qualitative feedback from practitioners. In our study, practitioners did not mention any specific barriers to promoting physical activity with their patients however they did report trying to target patients who they perceived to be motivated towards physical activity and therefore more likely to adhere to the intervention. We have added text to the results section to clarify this point. [lines 184 – 188].

2. Figure 2 presented the patient flow but the reviewer felt the wrong focus was presented and suggested an alternative. Specific comments referred to how we expressed the percentage of patients and follow-up rates.

   We agree with the reviewer and have adopted the suggested presentation as a more appropriate way of presenting the follow-up results. We have therefore expressed the number of patients who received follow-up as a percentage of those who were eligible and interested in the BI (n=367) as opposed to the total number of patients who were considered for the intervention (n=526).

   We have modified Figure 2 and relevant text to better reflect the number of patients who could have potentially reached the follow-up stage of the intervention. Relevant changes have been made throughout the results section to reflect this approach and we believe it is much clearer and more informative.

   The reviewer specifically requested more details on why, if 526 patients were screened, only 449 patients completed GPPAQ.

   We have added text to explain the number of patients who were not eligible for LGM and the number of patients who did not complete GPPAQ [lines 200 – 205].

   The reviewer questioned how patients were aware of the additional promotional material if this was displayed in the practice.

   We have revised the text reporting the additional promotional material to explicitly indicate that the material was included with the letter of invitation sent to patients as well as some material being displayed in the practice waiting room. It is now more clear how patients were exposed to the additional promotional activities and we state that this may have increased patients awareness
and interest in the LGM program [lines 289 - 296]. In the discussion we highlight this variation in the protocol and its potential to have improved patient recruitment.

3. **The reviewer was interested in more details of the patients’ health status, particularly those recruited via the opportunistic approach.**

We are unable to add these details due to the protocol and available access to patient level data and records. Unfortunately the methodology proposed by the Department of Health, in part selected to expedite the planning and ethical clearance procedures, classified this study as “an audit” by the National Research Ethics Service. This restricts what data can be collected or accessed including a restriction on data on patient’s medical history or current health status. Given this situation, we are therefore unable to present further details on patient recruitment by existing health status.

The reviewer commented on the patient flow, adherence and attrition at different time points. Specifically noting that a greater number of patients from the disease register practices attended the BI, however these patients were less compliant at follow-up.

The higher flow through in patients recruited via disease registers is perhaps explained by the fact that both the health professional and patient knew the purpose of the consultation and it was often booked as a double appointment to allow adequate time for the screening and the brief intervention. There was therefore no opportunity for these patients to ‘drop out’ between screening and the BI.

In practices recruiting patients opportunistically, LGM was discussed after dealing with the presenting condition, hence it was more possible to run out of time within the consultation. In this instance, a second appointment might be made but this allows more opportunity for patient drop out. Thus the reviewer correctly identifies functional differences in the two protocols.

The reviewer noted the difference in rates of three month follow-up. Unfortunately data were not provided by one ‘disease register’ practice, which was unfortunately the disease register practice that delivered the most BI’s. This limitation constrains our ability to report complete compliance data at follow up and thus we likely under estimate the total response rate and overestimate a difference between the two recruitment methods.

4. **More details were requested on the background of the health professionals and whether this had an impact on the delivery and time spent on the intervention.**

As already reported in the methods section, health professionals were either GP’s, practice nurses or health care assistants and they had varying amounts of experience in utilising motivational interviewing techniques. Given the small number of practices and the likely contextual differences as well as length of work experience, it was not possible to draw any conclusions or attribute any observed differences to the qualifications of the health practitioner. We agree that this is an important issue and would recommend that this is explored in future research.

We do already note that there were observed differences in the time taken to deliver the BI by different health professionals. However no particular pattern was evident and we note this on line 265.
5. The reviewer is interested in more detail on the variation in delivery style and content of the brief intervention and queries what might have caused these differences.

As mentioned above, this study was classified as an ‘audit’ by the National Research Ethics Service and as such imposed a number of constraints on what data could be collected. We were not able to collect any observational data during consultations and thus relied solely on recall and feedback from the health professionals themselves. Our focus group and interview data do indicate that health professionals reported differences in their delivery of the BI and that this was due to their level of confidence in using motivational interviewing techniques as well as the time pressure constraints. We are however unable to provide any more specific assessment and in our discussion we have added more clearly a call for more evaluation of intervention fidelity and the actual content and quality of counselling delivery at both the screening and follow up stages of the LGM intervention [lines 339 – 344 and lines 390 - 393].

6. The reviewer suggests that more detail is required on the poor response rate at follow-up.

We agree that this is an important result and required more discussion. We have therefore added to our discussion and specifically we have stated the potential logistical difficulties in commencing follow-up consultations while still recruiting and screening patients at baseline. This overlap could have easily required administrative resources that exceeded practice capacity. We have also noted that although Let’s Get Moving is a new approach to physical activity promotion in the primary care setting, it is based on review level evidence and on other tested approaches including exercise referral schemes. We report in our discussion that a systematic review of attendance at exercise referral schemes showed that 80% of patients drop-out before the end of the programme. We suggest that this shows our response rate may be quite typical of what has previously been found. We also call for further research on understanding and intervening to increase compliance rates as this is a critical factor to program cost effectiveness [see lines 375-377].

7. The reviewer suggested that the title of the paper did not reflect the content.

We have modified the title to now read: A process evaluation of a ‘Physical Activity Pathway’ in the Primary Care Setting

Minor revisions

8. Clarify what activities patients were signposted to and specifically local authority leisure services.

We have clarified this in the methods by listing the types of activities included within each category.
9. Clarify how exercise referral schemes may have interfered with the implementation of Let’s Get Moving

We already indicated in our discussion that the low number of high risk patients was likely explained by the fact that ER schemes were run concurrently to LGM. This was not intended and therefore practices need better guidance and the two approaches may need to be explicitly combined. We have revised this text to make it more clear [lines 358 - 364].

10. The reviewer noted some confusion between the reporting of % patients taking part in a LGM activity and the % patients reporting an increase in physical activity.

We have removed the relevant text on this issue based on suggestions from Reviewer 3. The data on increased physical activity is self report and not from the patient but rather the health practitioner. This is a particularly weak indicator and again a consequence of the project being an ‘audit’ and no patient level data could be obtained directly. We agree that this is a weak measure and open to response bias and thus have deleted reporting.
Response to Reviewer 2. Diane Crone

1. The reviewer suggests that more discussion on motivational interviewing in exercise settings is required and that links to relevant literature should be included.

We agree that intervention fidelity is a major concern, and particularly in the delivery of counselling on physical activity. We state this issue in relation to practitioners’ confidence in using MI as well noting the large differences in time taken to deliver the intervention. We have extended our comments on this issue and integrated previous published work in this area [lines 330 - 347].

2. The reviewer queries whether the approach taken was ‘inductive’ or ‘deductive’ analysis of the qualitative data from the focus groups.

Although we initially planned to take an inductive approach to the qualitative analysis, given the focus of this study was to learn about a set of a priori selected components of the LGM program, it was agreed that a deductive approach was more appropriate. We have now corrected this description in the methods section of the paper [lines 170 - 173].

3. More discussion of the different response rates in disease register practices is requested.

We agree that this is an important result and have expanded on this in our discussion. We state more clearly that the use of additional health promotion activities may explain the success achieved in one practice and that the likely poor planning may explain the very much lower rates in the other two practices [lines 289 - 303].

Clarity was sought on the meaning of participants “continuing through the intervention.”

We have changed the wording in the paper to make it clear that this relates to the number of patients who received the brief intervention [line 211].

4. The reviewer noted the low response rate to the three-month follow up consultations and suggested that three-months may be too long before recalling patients.

We have re-organised the discussion section based on the suggestions and comments from all three reviewers. In particular, we now address the issue of recruitment and retention more clearly and we discuss the follow up response rates. We note that our qualitative feedback indicated that there may have been logistical problems with trying to complete baseline recruitment and commence follow-up consultations. For this reason practitioners considered a single follow-up at six months may be more feasible.

We note ourselves that from a behavioural perspective, it is likely to be much more preferable for a shorter duration between baseline (intervention delivery) and follow up support. Clearly our study cannot definitively resolve this issue and only offers further evidence to stimulate a debate. Moreover, we now explicitly state that further research is required to explore and improve recruitment and retention rates [lines 375 - 377].
5. The reviewer suggests that the discussion lacks sufficient context specifically in terms of the results on motivational interviewing and adherence to other primary care physical activity interventions such as exercise referral schemes. A request is made for the discussion to be expanded.

We have expanded our discussion of the results. We cite the work of Gidlow et al. (2005) who highlight that 80% of participants drop out of exercise referral schemes before the end of the programme. We note that the LGM program is based on a similar model to exercise referral and the similarity in response rates [see page 16].

6. The reviewer questions whether the ethnicity of the health professionals may be associated with the lower recruitment rates in ethnic minority groups.

We note that this is a good point however many of the health professionals involved in the trial were themselves from the relevant ethnic minority groups. We therefore do not think the ethnicity of the health professional was a factor associated with the differential levels of patient interest and uptake.

7. The reviewer provides a reference to the work of Breckon et al. (2008) and a systematic review of behaviour change counselling. It is suggested we incorporate this into our discussion.

The authors are aware of this work and agree it would be useful to reference this work within our discussion of the motivational interviewing and fidelity of delivery of the BI. We have now cited this work as well as earlier work by Bellg et al. (2004).

Delivery of the BI by other health professionals such as health trainers was identified as a potential recommendation for further research.

We agree with this recommendation and there is a need and scope to test these types of interventions using other allied health professionals. We have now added this recommendation to our discussion [lines 413 - 416].

8. The reviewer suggests that further research is warranted to explore alternative recruitment methods.

We agree. This study only tested two recruitment methods which were selected from a longer list of potential strategies. We have now included this in our list of recommendations.
Response to Reviewer 3. Gary Goldfield

1. The reviewer notes that we have provided a good rationale for using Primary Care as a public health intervention to boost physical activity in adults. However he notes that we do not cite specific findings from relevant research to provide the supporting case that further brief intervention of PA in primary care is warranted. This is particularly so, because one studies title suggests that these interventions are ineffective (Hillsdon et al).

We have added citations and text to the introductory section of the paper to present more findings from other research [see lines 74 – 81]. We note that although some research has found less favourable outcomes from brief interventions, overall there is a strong body of evidence supporting such approaches in primary care and this is the main conclusion of the NICE review (see NICE review, 2006). What is less well known, is what type of brief counselling is appropriate and how it should be delivered. Out study is a process evaluation addressing these questions.

2. The reviewer supports our primary conclusion that LGM needs some revisions before further testing and he endorses the limitations we already present in the paper. He continues to note others and suggests that these be included, particularly the weakness in the self report data due to response-bias.

We accept the limitations surrounding the self report data of reported change in patient behaviour and agree that these should be deleted. We have amended the paper accordingly.

The reviewer notes that the paper omits to recognise the over-representation of the Asian and British Asian populations within the sample.

Although we reported the data we did not make a specific highlight of this distribution. We have therefore now more clearly noted that some practices had a high proportion of Asian and Asian British patients [lines 94 – 95] and added this as a limitation to the study [lines 395 – 398].

3. The reviewer notes that the targeting of patients identified as inactive on GPPAQ and queries why 367 patients were identified as interested and eligible if only 198 were classified as inactive on GPPAQ.

LGM set out to screen and identify those patients not meeting the current national recommendation of 30 minutes of moderate intensity activity on 5 or more days of the week. It did not try to target only the “inactive”, as in those in the lowest level of physical activity as classified by the GPPAQ. To clarify who was and who should not have been recruited to LGM we have added a column to Table 1 [See Table 1].

4. The reviewer queries the reporting of the self reported outcome data and suggests the authors might consider removing this from the paper.

We agree and have removed these data from the paper.
5. The reviewer notes that three months follow-up is an appropriate time-point and questions why the authors have recommended a single follow-up at six months.

To clarify, our results found that health practitioners considered a single follow-up at six months as more feasible and they suggested this would align LGM with other practice procedures for patient follow up. LGM was designed to have both 3 and 6 month follow up consultations. Our process evaluation showed that with slow recruitment rates the overlap between recruiting patients and conducting follow up appointments can place a burden on practices. This issue is unresolved by our study alone and we recommend that further work is required to resolve the timing of follow-up and revised protocols are required to improve patient compliance [lines 366 – 377].

6. It is suggested that the percentage of patients who attended follow-up should be expressed as a percentage of patients who were eligible and interested in the BI (n=367) as opposed to the total number of patients who were considered for the intervention (n=526)

The authors agree that this would be a more appropriate way of presenting these results and have modified the paper accordingly.

7. The reviewer has identified a discrepancy in that the study focussed on the feasibility of implementing LGM as opposed to patient behaviour change, yet data are reported on patients’ self-reported increase in physical activity at follow-up.

Assessing physical activity behaviour change was not a primary aim of the study, and due to the weak measures used as well as issues with response bias as noted by the reviewer, we no longer report these data in the paper.

8. No statement was included in the methods regarding ethics board approval or whether patients were required to sign an informed consent form.

We note this omission and have now inserted a statement on ethical approval within the methods section of the paper [lines 175 – 177]. As this study was classified as an audit, and therefore considered to be within what might be expected in standard practice, patients were not required to sign informed consent forms.

Discretionary Revisions

1. There was some reservation expressed by the reviewer as to the type of qualitative analysis that was used.

As detailed in our response to Reviewer 2, we initially planned to take an inductive approach to the qualitative analysis, however given the focus of this study was to learn about each component of the intervention it was agreed that a deductive approach would be more appropriate. We have now corrected this and report a deductive approach in the methods section of the paper.
2. It was suggested that the number of participants who took part in the study should be included in the abstract and in the methods.

We have added the reporting of the number of participants to the abstract [lines 33 – 35], however we do not feel it is appropriate to include these data in the methods section. Our methods section outlines the approach taken by health professionals to recruit patients and the number of patients successfully recruited via each approach is then reported in the results section.

3. The reviewer notes the variation in patient recruitment and compliance between the 2 recruitment methods and recommends that statistical tests are undertaken to determine whether these differences are significant.

The authors have added some additional discussion on the differences in adherence and attrition rates between the two recruitment methods. However, due to the variation in protocols used by different practices as well as the missing data from two of the practices at different time points, we feel that conducting a test for statistical difference is not appropriate in this instance. We agree further experimental research should be conducted and that this is one of several issues that should be addressed in future work.