Reviewer's report

Title: Physical activity assessment in practice: a mixed methods study of GPPAQ use in primary care

Version: 1 Date: 22 October 2013

Reviewer: Linda Ooms

Reviewer's report:

Dear Dr. Neil Heron and co-authors,

I have re-read the article. Hereby, I have taken into account both my own comments as well as the comments of the other reviewer. The article, in general, has improvements, since the last review. However, some important questions remain. Original reviewer comments are underlined. Author responses are italic.

Major Compulsory Revisions:

1. Original comment: The introduction should be rewritten, specifying for which conditions physical inactivity is a proven major risk factor and specifying the literature in which proof is given that interventions regarding physical inactivity have had a demonstrated effect on such conditions. Author response: The background has been amended and more up-to-date references included. The argument that we have presented in this paper is from the perspective of the general practitioner (family doctor): physical inactivity is clearly linked to non-communicable disease and with the majority of the population seeing their GP at least once every year, GPs provide the ideal setting for tackling this epidemic. Thus this is the basis for our argument and indeed our study.

(Examples of) conditions for which physical activity is a proven major risk factor still need to be mentioned. Maybe you can use your new references for this purpose. Also, nothing is said about (effective) physical activity interventions. There is a lot of research in this area, also related to physical activity interventions in primary care (e.g. exercise referral, exercise prescription, exercise counseling). The sentence in the introduction, paragraph 1 “However, there has been minimal investment researching effective ways to encourage physical activity uptake” does not seem correct.

2. Original comment: The low number of consultations (8%) in which GPPAQ is used is worrisome. In my opinion, this comment is still not adequately addressed in the article. In the discussion, GPPAQ and study participants, paragraph 3, something is said about this: “It is of interest…..general population”. The only explanation for the low number of consultations that is given is that the health professionals may have selected patients who they deemed inactive. When looking at practice 3 (GP/nurse led), the percentage of inactive patients (46.2%) is not much higher than in the general population (40%). So this explanation does not work for practice 3. Other explanations should be explored in the
discussion, like time constraints and people not willing to fill in the questionnaire (even if you don’t have any exact numbers). What were the reasons for the low number of consultations in which GPPAQ was used in the London practices? Can these be applied to your study too? In general, it is not known how patients were selected by GPs, nurses and receptionists. This is a major drawback of the study and it should be discussed in the discussion section, as well as the consequences for the interpretation of results.

3. It is still not clear how the questionnaire was administered. In the methods section, paragraph 3, this needs more clarification. I, for example, miss the paper-copy option (administered by the GP/nurse) (see Table 2, practice 3). Aren’t these the options?:
   - The GP/nurse directly completing the questionnaire within the electronic medical record during consultation (are questions and answers directly filled in the electronic medical record?).
   - The GP/nurse completing a paper-copy questionnaire during consultation and later electronic data entry.
   - The receptionist providing a paper copy at reception for self-completion by surgery attendees eligible for the study; GP/nurse review of patient-completed paper-copy and update of electronic record during consultation.
   - The receptionist providing a paper copy at reception for self-completion by surgery attendees eligible for the study; GP/nurse review of patient-completed paper-copy and later electronic data entry.

   Were there cases where the questionnaire was not entered electronically (just a paper record was kept)?

4. Original comment: Results: Op p.11: End of study questionnaires were completed by eleven of the nineteen GPs (58%), three of the ten nurses (30%) and two receptionists. This seems not a very high response. How does this affect representativeness? Something should be said about this in the discussion.

   Author response: The end-of-study questionnaire findings were discussed in the focus groups and opinions expressed, including comments about other colleagues’ experiences and views, confirmed the questionnaire findings. Comment regarding the approximately 50% response rate for the health professionals involved in the study has been added to the discussion section; the lower rate for nurse completion was unavoidable because of limited availability at the time of its requested completion due to allocated leave and duties. With regards receptionists, we would have liked more participation from this group but when the study was being undertaken the focus was on health professionals.

   The reason for the lower rate of participation, the fact that questionnaire results were discussed in the focus groups and that the results of the questionnaires were confirmed in the focus groups are important explanations. I can’t find these explanations and the comment about the 50% response in the discussion section. Moreover, how many receptionists were approached for the questionnaire (response?)?
5. Original comment: An important omission is the lack of any registration of characteristics (demographic or clinical) about the respondents and the not included patients during the consultations at which the GPPAQ was tested. Author response: The characteristics of each practice are included in Table 1 and the practices are drawn from deprived areas of Belfast, as measured by Multiple Deprivation Measure (MDM), which is obtained from postcodes (see page 7 for more detail). The patients who never entered the study did not consent for me to access their data and therefore we cannot provide details about this although this may well provide important information about the background population.

Not knowing characteristics (demographic, clinical) of patients (included and excluded patients) is still an important limitation of the study and it should be mentioned as a limitation in the discussion section.

6. Original comment: Are those people reached that need the GPPAQ most (inactive, socio-economically disadvantaged)? This is especially the question for the receptionist-led GPPAQ administration, as then all patients attending the practice for a face-to-face consultation were given a questionnaire. Something should be said about this in the discussion. Author response: We have reported the socio-economic status of patients assessed, using the Multiple Deprivation Measure, which shows that they were classified as being socio-economically disadvantaged. Our results also show the number who completed the GPPAQ who were categorised as being inactive. It is because we recognise that these are the people who have greatest need that we undertook the research in these 4 practices – areas of socio-economic disadvantage. We have amended our discussion point to: Thus our study provides new information regarding its suitability for use with patients from socio-economically disadvantaged areas, within routine consultations in everyday practice and in conjunction with additional electronic record systems. This information is relevant to those who live and practice in such areas, in order to promote physical activity and to attempt to reduce recognized health inequalities {{469 Gidlow,Christopher 2006;}}.

Original comment: In relation to the aforementioned point: How do you know you actually reached socio-economically disadvantaged people? The practices were located in socio-economically disadvantaged areas, but are all people visiting the practice socio-economically disadvantaged? No patient characteristics were measured. Author response: Please see response above - The Multiple Deprivation Measure (MDM) was calculated for each patient based on their post-code and confirmed their low socio-economic status. No other information of individual socio-economic position (such as income, house-ownership) was available but the MDM is a reliable measure of individual level socio economic status.

These points are still not fully addressed in the methods/discussion section.

In the methods section, it is said that the MDM is calculated. In your response you say it is a reliable method to measure socio-economic status on an individual
level, but I can't find this in the article (including a reference). It is also said that the MDM is calculated for individual patients, but I can’t find the results. Were all participants socio-economically disadvantaged based on calculations of the MDM?

Moreover, in practices 2 and 4 (receptionist-led), 50% and 66% of the participants was moderately active or active. So a large part of the participants did not belong to the target group (i.e. inactive people). This should be discussed in the discussion section. The receptionist-led method saves time for the health professional, but less inactive people are reached compared to the other methods (GP/nurse-led).

Minor Essential Revisions

7. I need some clarification about an adjusted paragraph in the discussion, GGPAQ and study participants, paragraph 5: “With regard to time pressures...record system.” I think this part needs to be reformulated. I think you mean that the GPPAQ approach completion with minimal intrusion on consultation time, was the one in which patients self-completed the questionnaire (reception-led) prior to face to face consultation with the GP/nurse. This is not what is says now. Furthermore, is it known if the health professionals favored to complete the questionnaire directly or later in the electronic system? Or just keeping a paper record?

8. Original comment: Method: On page 8 (last sentence): Overall, 19 GPs and 10 nurses administered GPPAQs. Why are the receptionists not mentioned? Author response: Potentially all receptionists employed in the practices were involved in giving the questionnaires to patients attending and we did not ask for a record regarding who actually did do so. We do know that questionnaires were given out during every surgery session during the relevant weeks of data collection. Numbers of receptions were not recorded: they were indirectly involved with the questionnaire but the health professionals mentioned were directly involved in using the questionnaire.

A short comment should be made about this in the methods section. When re-reading the article, I again thought it strange that the receptionists were not mentioned.

9. Original comment: Discussion: On p.18: “Factors often cited for reluctance to discuss physical activity promotion are: time (ten minute consultations)....” This should be related to your own findings as “time constraints” were a restriction in this study too. Author response: Thank you for noting this - On P18 we have added: ‘These findings were supported by those of the focus group work in this study.’

The way it is written down it seems that all factors were also found in this study. I don’t think this was the case. I think time was the most important factor mentioned in your study. So, this should be described that way.

10. Original comment: Results: On p.10: “the receptionist providing a paper copy
at reception for self-completion by all surgery attendees within the recommended age range for the study”…Do surgery attendees comply with the definition of non-urgent consultations? Author response: Yes, the receptionists only give it to those patients who had a routine appointment with a health professional.

It should also be clarified in the methods section, to whom the receptionists gave the questionnaire (i.e. only those with a routine appointment/eligible for study). For example, in the part were the different administration methods are described.

11. Original comment: Results: On p.11/discussion p.19: “No information was available about the relative numbers of consultations undertaken by nurses during the study compared to doctors.” What is meant by this sentence? In table 3, the number of GPPAQs completed by nurses are presented. Author response: This refers to an unknown number of consultations which were scheduled with nurses compared to GPs during the study period – we have only the total number of routine consultations recorded. Thus we are unable to estimate the proportion of the approximately 2,000 consultations who attended the nurse and the percentage which attended the GP. This may prove important because if the majority of the consultations were for GPs then we would expect that the majority of the questionnaires would be completed by GPs rather than nurses. Table 3 just shows the number of GPPAQs completed by the nurse and the GP.

This is a clear explanation of the author. This also should be clarified in the text (results and discussion), because when re-reading the text I again was confused. It can be easily clarified in the text, by saying that it is not known how many consultations were undertaken by nurses relative to doctors of the total of 2,154 consultations.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.