Reviewer 3

Comments and Suggestions for Authors

R3(Comment 1): In general, the intervention study which is described in this article is a very interesting one. However, its reporting should be more detailed and accurate and its inferences should be more realistic.

Let me start from the conclusion mentioned in the abstract: “Conclusion: This photovoice intervention improved the participants’ physical activity level and physical fitness, particularly in lower limb flexibility and body strength”. This conclusion focuses only on the photovoice, while the intervention included some other components which added to the patients’ knowledge and to their motivation to improve their physical activity. In the discussion, the authors wrote: “This multidisciplinary approach seemed to be a key contributing factor to the success of this photovoice intervention”. It could be that the multidisciplinary approach and not the photovoice by itself contributed to the intervention outcome. However, this speculation is not mentioned. The conclusion, which is mentioned in the abstract might mislead readers who use to read only abstracts (and not the full paper).

Our Response: The abstract was revised to indicate that the multi-component intervention was used: A community-based multi-component intervention (photo-taking, photo-sharing in group discussion, identifying facilitators and barriers to exercise, self-reflection, and action plans) was developed to promote physical activity (PA) among patients with diabetes and hypertension.

Need more accuracy (some examples):

R3(Comment 2): Study design: the authors define their study as “a quasi-experimental study” (row 90) and few rows later they write: “The recruited participants were split into two groups by random number generations: intervention group (IG) and control group (CG) (rows 99-100). They practically describe a controlled clinical trial (not a quasi-experimental). Both randomly selected arms received accelerometers for recording steps.

Our Response: It is a controlled trial without randomization. We have deleted the word ‘random number generations’ from the sentence.

R3(Comment 3): CBPR: the authors describe: “Community-based participatory method refers to the active engagement of the participants in the photovoice project by using their own life experiences, sharing their views on the selected health topic, propose and develop solutions together with the researchers”. This is only one part of the CBPR principles. Some other parts are described in the discussion instead of mentioned it in the 2.2. Six-Week Intervention. However, in a classical CBPR the participants should take part and have an input to the design of the tools of data collection. In this case, their photos referring to barriers to physical activity could contribute items to the questionnaire about barriers.

Our Response: To avoid misleading, we deleted the description about CBPR.
R3(Comment 4): More specific methodology: Data analysis section should be much more detailed. The authors used the Generalized Estimating Equations (GEE) models to assess the intervention effect over time on all the outcome variables. In the tables they present the group difference, but it is not mentioned how this difference was calculated.

Our Response: The following sentences were added to give more details: (line 240-244) In the GEE models, Time, Group and the interaction term between Time and Group (Time X Group) are independent variables. The coefficient of the interaction term Time X Group estimates the mean difference in the change of the outcome variable over time between the two treatment groups. A significant result in Time X Group indicates a significant differential change in the outcome variable over time between the two groups.

R3(Comment 5): The use of means for composite variables should be explained: A. using means for description should rely upon a normal distribution of the variables – this is not mentioned. B. summarizing scales (self-efficacy for physical activity or barriers to exercise) should rely upon their internal consistency (not mentioned).

Our Response: We added the following sentences to explain: Descriptive statistics, including numbers, percentages, means and standard deviation for normally distributed variables, and medians and inter-quartile range (IRQ) for non-normally distributed variables, were performed on demographics, number of steps taken daily and self-efficacy and barriers for doing exercise. Chi-square tests for categorical variables and independent t-test for normally distributed continuous variables and Mann-Whitney test for non-normally distributed continuous variables to compare the similarity in baseline characteristics between the two groups. Kolomogrov Smirnov Test was used to check the normality assumption of the variables. We added the Cronbach’s alpha for self-efficacy for exercise, Barriers to Exercise and Chinese Health Literacy Scale (Line 208-209; line 213-214; line 219-220).

R3(Comment 6): Personal goals: In the last group meeting (as mentioned in the description of the intervention), participants set up individualized action plans (including goals and timetables) for physical activity in the next four weeks. This does not appear in any other part of the article. It is missing.

Our Response: We have added the term ‘action plan’ in the Abstract (line 18), Introduction (line 84), Intervention (line 151, 168), Discussion (line 321). Detail discussion about the action plan can be found in line 353-362.

R3(Comment 7): By the way, the participants average number of steps taken daily is very high at the beginning (time 0) – this might contribute to the explaining why there are only minor changes after intervention – there is no hint of that in the article.

Our Response: Agree, the participants’ average number of steps taken daily at baseline is high. We added the following sentence to address this point: (line 332-334) We also noticed that both IG and CG participants’ average number of steps taken per day at baseline was very high, this may partially explained why there was only minor changes after intervention at Week 10.