## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

## **ARTICLE DETAILS**

TITLE (PROVISIONAL)	Hand exercises for patients with rheumatoid arthritis – an extended follow-up of the SARAH randomised controlled trial
AUTHORS	Williamson, Esther; McConkey, Chris; Heine, Peter; Dosanjh, Sukhdeep; Williams, Mark; Lamb, Sarah

# **VERSION 1 - REVIEW**

REVIEWER	Krysia Dziedzic
	Institute for Primary Care and Health Sciences, Arthritis Research
	UK Primary Care Centre, Keele University, Keele, ST5 5BG
REVIEW RETURNED	17-Oct-2016

GENERAL COMMENTS	This manuscript describes further follow up of participants recruited to the SARAH trial. Whilst follow up was implemented over a wide range of time periods for individual participants the findings are key for clinical practice.
	I have only a couple of very minor points:
	Can trial registration be included?
	Abstract- clarify that adherence to exercise was measured in both arms; is the conclusion too strong given the overall findings?
	Methods; in brackets include the average numbers of exercise sessions
	Limitations: expand on responder versus non responder characteristics; discuss potential changes in disease status of participants.
	Consider the role of other health professionals in supporting adherence throughout the patient journey e.g. role of practice nurses.
	Page 22 line 3 'data are' correction

REVIEWER	Karen Ellegaard
	The Parker Institute, Bispebjerg Frederiksberg Hospital,
	Copenhagen Denmark
REVIEW RETURNED	25-Oct-2016

GENERAL COMMENTS	This is a very interesting study investigating long term follow up after
	an exercise intervention in patients with rheumatoid arthritis. It
	seems relevant to investigate both the long term effect and the

adherence to the exercise program.

In general throughout the manuscript it would be nice if it was totally clear when the authors refer to the main study (SARAH) and when they refer to the extended follow up study for example at page 5 under the intervention section and on page 6 under randomization and statistical analysis.

In sample size estimation it is stated that the effect size is adjusted but not to what.

At page 6 in line 10 it says that the number of questionnaires is reduced in this follow up, but I cannot see which are not included. The heading in the bottom of page is unclear; flow diagram is mentioned but not in the following text.

I assume that on page 9 it is the Baseline date from SARAH in table 1.

It would be nice if the number of participants in table 2, 3 and 4 were stated.

#### **VERSION 1 – AUTHOR RESPONSE**

Reviewer: 1

Can trial registration be included?

This is already included in the first paragraph of the Introduction.

Abstract- clarify that adherence to exercise was measured in both arms; is the conclusion too strong given the overall findings?

The text has been modified and hopefully better reflects the findings as you suggest.

Methods; in brackets include the average numbers of exercise sessions

This has been added.

Limitations: expand on responder versus non responder characteristics; discuss potential changes in disease status of participants.

Further consideration to these points has been incorporated into the limitations section of the discussion.

Consider the role of other health professionals in supporting adherence throughout the patient journey e.g. role of practice nurses.

Thank you for this suggestion. We have included this in the discussion about clinical implications.

Page 22 line 3 'data are' correction

The text has been corrected.

### Reviewer: 2

In general throughout the manuscript it would be nice if it was totally clear when the authors refer to the main study (SARAH) and when they refer to the extended follow up study for example at page 5 under the intervention section and on page 6 under randomization and statistical analysis.

We have reviewed the text to ensure it is clear when we are referring to the main study or the extended follow up. The methods are mostly the same for both as the extended follow up is an extra follow up time point for the main study (see section Study Procedures). Where methods are different (such as the follow up procedures – face to face versus postal) this has been made clearer.

In sample size estimation it is stated that the effect size is adjusted but not to what.

This has been clarified in the text and it is clearer that the effect size is 0.3.

At page 6 in line 10 it says that the number of questionnaires is reduced in this follow up, but I cannot see which are not included.

Further detail has been provided so that this is clear.

The heading in the bottom of page is unclear; flow diagram is mentioned but not in the following text.

It is not clear which page you are referring to here. Figure 1 is referred to in the text in the first paragraph of the results section. The Figure 1 – Consort Flow Diagram is written to indicate the approximate placement of Figure 1 in the manuscript as per Instructions to Authors.

I assume that on page 9 it is the Baseline date from SARAH in table 1.

Yes, this is correct.

It would be nice if the number of participants in table 2, 3 and 4 were stated.

The number of participants has been added to the top row of Table 2 and 4.

In Table 3, the number of participants is listed in the last column of the Table.

#### **VERSION 2 - REVIEW**

REVIEWER	Krysia Dziedzic Arthritis Research UK Primary Care Centre Primary Care Sciences Keele University Staffordshire, ST5 5BG UK
REVIEW RETURNED	29-Nov-2016

GENERAL COMMENTS	I would like to thank the authors for consideration of the reviewers' comments.
	Spotted a minor typo in discussion 'forexample'