**Editorial comments**

\* We agreed with reviewer concerns about nonstandard work hours for doctors. One of our editors noted that because he works in the US, where 60 hours is considered his standard work week and he works unusual shifts. He commented as follows: "Note entered on a Sunday at 1 PM (but I am also on call at the hospital: it is a weekend, but working hours. How would this be classified?"

RESPONSE: We appreciate that many doctors will do their research outside the usual working hours. Sixty hours per week would be considered as overwork by many people, and submitting a review at 1pm on a Sunday is a good example of why examining submission data is interesting. Individuals may be happy working these non-standard hours (which we acknowledge in the discussion), and some may need to for their job. Our paper takes a broad view of country-level patterns rather than individual work patterns.

\* We also share some of the reviewer concerns about the definition of out of hours and the assumption that this is a proxy for academic work. The latter assumes that publications are from academics whose jobs require them to publish. Quite a lot of doctors who publish do not have formal academic appointments with protected time for research. Their research is in addition to their jobs so they actually should not submit papers during working hours. We don't know what proportion of papers are submitted by non-academic doctors. One editor noted that academics have flexible hours and that even if they submit papers or reviews late at night, perhaps they took time off earlier in the day to run errands or attend a child's school performance.

RESPONSE: We no longer use a strict definition of out-of-hours based on the time of day (see below). We acknowledge there will be lots of individual reasons for submitting outside the standard working week. However, we believe it is interesting to look at these levels and compare them over time and between countries. We have now included a reference that mentions the pressure on doctors to publish in addition to their clinical work.

\* We wondered how many academic physicians in the US or elsewhere would agree with the definitions of usual working hours. Surgeons routinely start their day at 5 am, for example. In Mexico, lunch is often from 3 to 5 pm and then many people work until 8 PM. One editor who is a native of Mexico said "News to me: '[in] Mexico the weekend is Sunday only…”' Where do they get this information?"

RESPONSE: We have now used an analysis that allows for varying time-of-day effects between countries (see below).

The information on weekends came from Wikipedia. The entry for Mexico sites a 2012 federal work law which states (translation): “Days off: For every six days of work the worker will enjoy a day off […] the weekly rest day is the Sunday.” There may be a difference between the law and what happens in practice.

98% of the data are from countries with a Saturday to Sunday weekend, so any country variations in the weekend are unlikely to make much difference to the overall results. We have mentioned the predominance of the Saturday/Sunday weekend in the methods.

\* Because of these concerns, we think you should consider de-emphasizing the "outside work hours/in work hours" distinction and simply focus on intervals of time during the day, e.g. 8am to 5:59 pm, 6:01 pm to midnight, etc. In other words treat this more generically as "the time of day" when BMJ authors and reviewers are working. If you do not want to do that, perhaps you could include some sensibility analyses to look at the period 8 PM- 6 AM.

RESPONSE: We have now used an approach that examines country differences from the overall average without the need to specify specific working hours. This new analysis uses a smooth continuous difference over the 24-hour clock in each country and is a more complex statistical model than the dichotomous approach. However, it gives a good fit to the data (R-squared 85%) and reveals interesting differences between countries which mirror the previous findings using the simple dichotomous approach as China is once again a clear outlier with the highest probability of working late nights.

\* We would like you to double check and confirm whether S1 adjusts the time reviews or papers are submitted based on location. Is there any possibility that you are double adjusting? It seems worthwhile to make certain time stamps are accurate.

RESPONSE: We have confirmed with Clarivate that all times are in EST and are not adjusted by country.

\* “Statistical reviews were excluded as they are paid and so may have a different working hours pattern.” How did you identify these?

RESPONSE: SS extracted the dataset from ScholarOne with names and identified all statisticians working for The BMJ and removed all their reviews. We have edited the sentence to make this clearer.

\* Without numbers these statements are difficult to interpret: “The differences between countries are summarised over all outcomes in Figure 3 , which shows the relative rank of each country’s probability of submitting or reviewing on weekends, early mornings / late nights, and holidays. China had high probabilities of submissions and reviews on weekends and early mornings / late nights, but lower probabilities on holidays. The Scandinavian countries of Norway, Denmark, Finland and Sweden had some of the lowest probabilities and were generally always ranked in the lower half. The three Mediterranean countries of Spain, France and Italy had relatively high probabilities for most outcomes, although Italy had relatively low probabilities on holidays. The United States had relatively low probabilities on weekends and late nights, but high probabilities on holidays.”

RESPONSE: We have added numbers to the updated plot and the text.

\* What were the priors for the modeling? We need more information in the methods and the distributions you assume. We appreciate the github repository. Might there be a way to keep that in supplemental information to make sure it is always available?

RESPONSE: We used non-informative priors throughout and we have added this to the methods.

Comments from our statistician: "Data were, not data was…"

RESPONSE: We could not find any use of “data was” in our paper.

"Statistical analysis inadequately described – Bayesian what? Need the detail to understand Monte Carlo Markov chains (sic) (page 17)."

RESPONSE: We have now written “Markov chain Monte Carlo” and added more details on the models.

"I don’t think the “small local peak at midday” is lunch - lunch looks more like the dip at 1pm, seen more clearly for submissions than reviews."

RESPONSE: We interpret this pattern as small local peaks during lunch and at the end of the working day.

"Table 2 with probability as % would avoid lots of zeroes."

RESPONSE: We have changed this table to use percentages.

"Figure 2 could superimpose BMJ and BMJ Open (like Figure 1), simplifying comparison and making the figure larger. Figure 3 probably overkill."

RESPONSE: We experimented with this superimposing for Figure 2, but it made the figure too busy in our opinion. We like Figure 3 (now Figure 4) as a simple way to show all the combinations of results.

"Discussion, para 1, last sentence. The trends over time were not consistent, they were absent."

RESPONSE: Agreed and re-worded to focus on the lack of trend.

\* The differences between countries are the most interesting. The interpretation might be improved if you are able to give us the raw numbers in some form (Scatter plot maybe?). You now present the data as differences from the average, and that might give a skewed picture.

RESPONSE: We have used a scatter plot to describe the differences between countries in the times of day (new Figure 4). We have used a new tile plot to show the differences between countries for weekends and holidays using the average probability (new Figure 2).

\* One can argue that the submission times are not a real proxy for work burden, but when doctors can submit papers in working hours, that implies that your research time is well-organised.

RESPONSE: Submission time is not a perfect proxy of work burden, but we think it can be used to highlight differences in average work patterns that are of interest.

\* We were surprised about 73k reviews on 50k papers. Considering how many we reject without review we were surprised the overall figure is so high. Is it accurate? Perhaps it's quite different for BMJ and Open?

RESPONSE: The numbers were very different by journal (see CONSORT flow chart) with submission and review numbers of approximately 26,300 and 18,900 for The BMJ, and 26,500 and 68,000 for BMJ Open. So far more papers are reviewed at BMJ Open. For the review data we included all versions of the manuscript and BMJ Open often sends revised versions back to peer reviewers for review.

\* Why are the trends for BMJ and BMJ Open "so" similar in figure 1? We wouldn't have expected the population of researchers to be so similar for the two journals or the sampling error to have been so small as to have essentially superimposed lines for most of the plot. Are there alternative explanations? (If a paper is transferred from BMJ to BMJ Open does it have the same submission data or a new submission time and date? Is there double counting of reviews too?)

RESPONSE: We have now excluded transfers between journals (2%). We note that the patterns by hour of day are still very similar (Figure 3). This is somewhat due to the large data set making for very smooth estimates, but also does imply that the two groups of researchers are not that different. Many of the estimates for changes over time and by country were also similar between The BMJ and BMJ Open.

\* We wonder if the title needs some adjustment. We like the "9 to 5" phrase. Perhaps something such as "9 to 5: Time of submission of manuscripts and reviews at 2 general medical journals.

RESPONSE: We have slightly re-worded the title.

**Reviewer: 1**

In this observational study, authors used data from the journal submission systems of two well-known general medical journals, the BMJ and BMJ Open, and analysed the submission dates and times of manuscripts and reviewers’ reports. The analysis included a period of seven years starting from 2012. The main finding was that many submissions occur early in the morning, late in the evening, during weekends or holidays. The rate of such submissions varies significantly between countries, but there was no an increasing trend from 2012 until 2019. Authors stated limitations of their study, mentioned some uncertainties and concluded that many researchers are overworked, under pressure to publish and that they scarify their private life for professional.

Although it is known that researchers at universities often complain of being overloaded with teaching, work with students, administrative work, research and, in the case of medical faculties, clinical duties and patients, many academics do not have (and are not expected to have) regular working hours. There are classes late in the evening (“could not be scheduled otherwise due to insufficient room”) and teaching stuff at medical faculties often works in shifts in hospitals (one can suppose that most contributions to the BMJ and BMJ Open come from researchers in the medical field). Thus, researchers are often not expected to work from 9 to 5 and working in other periods doesn’t necessarily mean that they scarify their leisure time.

Data of this study reports on the submission event, not actually on writing of a manuscript or review report. One can suppose that before submission an author/reviewer performs final reading and correction (maybe final checking of journal requirements), therefore needing to concentrate, and working early in the morning, late in the evening, during weekends, perhaps at home or during a quiet clinical shift, enables favorable environment – less crowd around, less noise, other duties finished (as recognized by the authors themselves) and, not to neglect, faster internet and upload of files (“most of the others are not working”). So, the moment of submission is, in a sense, a final decision which needs a clear, undisturbed mind. The data of this study has shown that in some countries it is highly unlikely that researchers will submit out-of-9-to-5-hours, which may speak in favor of their well-planned, well-organised and technically well-supported working life, but in countries with intensive out-of-hours submissions it still can’t be said that these researchers are overworked just based on the submission times.

RESPONSE: We agree, we can’t say for sure that researchers are overworked based on these results, but the results do point to large between-country differences in working hours and we think they are likely to create debate about overwork.

I suggest authors to modify the article to stress the submission moments (as supported by the empirical data) which may or may not directly reflect the overwork. Also, since there wasn’t a change in the submission trend in a 7-year period (and the researchers are constantly pushed to publish more), it is questionable whether submission times reflect the research burden of academic life and whether they are a proper argument for working longer hours. According to the presented data, working out-of-hours doesn’t confirm working more, only at different times (which is essentially not unexpected).

RESPONSE: Although we did not find an increasing trend in weekend or holiday work, there was a large increase in absolute numbers for the BMJ Open and in health and medical papers more generally. Combining our estimates of no relative change in weekend work with an absolute increase in total submissions would still mean a large absolute increase in weekend work. In other words, researchers are working harder on weekdays and weekends.

**Reviewer: 2**

Thank you for the opportunity to review this manuscript. It is an important topic given the excessive workload in academia, non-sustainable peer review system, and interesting research question. It is a great paper. Main comments is that the included literature could be improved.

Abstract:

• Change question to objective

RESPONSE: We are happy with our current wording.

• “Out-of-hours submissions or reviews on weekends, early mornings / late nights, or national holidays.”. I would like to see holidays, and sick-days added. How much do academics work during sick leave or annual leave. I know I do, Maybe discussion item.

RESPONSE: Sick days would be interesting, but require a different data source.

• “The levels of out-of-hours work were high, with average probabilities of over 1-in-7 for work on the weekends and over 1-in-3 for early mornings and late nights.” Can you reword/simplify this sentence please?

RESPONSE: We have now used the mean probabilities.

• I feel the conclusion does not match the objective and results: “culture of overwork” is a literal thing, not just a figure of speech.

RESPONSE: We like this analogy.

General:

• Change ‘review’ to peer-review assessments for clarity as people might think you are talking about systematic reviews if they just read bits of the paper.

RESPONSE: Agreed and changed.

Introduction

• Line 40-52: whilst clearly written, it is written as popular press. A stronger literature review would benefit the reader, including but not limited to: job satisfaction and performance measure related to publication output amongst academics. Additionally, as the study analyses by country, a proper introduction of the state of the international literature or publishing across countries would be useful.

RESPONSE: These Xmas issue articles are generally short and do not include a full literature review. We have added some new paragraphs to the introduction with some additional references.

Methods:

• Patient and public reviews were included for The BMJ but were a very small proportion.” Can you list the proportion please?

RESPONSE: We have added this percent.

• If you do it by country code:

o how did you determine what national holidays or seasons of reduced work are, as Chinese new year is clearly more applicable to the Peoples Republic of China and east Asian economies than say Northern America.

RESPONSE: Holidays were defined by country. A complete list of holidays is on our github repository and in the supplement.

o Please expand on ‘the R library “ggap” (4) and the time zones were added using the R library “geonames” (5).’ so novel readers can understand what you transformed.

RESPONSE: This was simply to add the time zone based on geographic location. ggap geocodes the address to give a longitude and latitude, and then the timezone is added based on the longitude and latitude using geonames.

o “Some addresses were incomplete and could not be geocoded; these data were excluded (see online supplement).” Can you specify proportion in main text, and which countries were excluded

RESPONSE: We have added the percentages to the main text. No countries were excluded based on missing address data.

o “Our primary aim was to examine changes over time and we anticipated that there would be an increase over time in out-of-hours work because of the growing pressure on researchers. We also expected differences between countries.” – this should go under aims/ introduction

RESPONSE: We think this text is useful here as it helps the reader understand our statistical approach.

o ‘The regression models used a Bayesian paradigm because this gives 95% credible intervals which are easier to interpret than 95% confidence intervals (8).’ Please add why this is easier? Most readers are not aware of Bayesian so please explain for novices.

RESPONSE: We have now written “95% credible intervals have a 95% probability of containing the true estimate whilst classical 95% confidence intervals do not”.

Discussion

o “However, the trends over time were remarkably consistent, indicating stable working patterns since 2012.” The pressure was likely to already be there since 2012.

RESPONSE: Yes, this could be the case.

o “The constant ability to work may be contributing to burn-out.” Please back this up with literature.

RESPONSE: We have added a reference here.

o ‘Differences between countries’. I think you need to take into consideration the number of papers published by academics in these countries.

RESPONSE: The results include the uncertainty in estimates which will be driven by the sample size in each country.

o “There are clear incentives for researchers to “publish or perish” in China, as hiring and promotion is based on the quantity of papers in journals.” I don't think this is any different in any other country? We are trying to create different measures as the author would be aware and maybe these can be discussed but it still counts.

RESPONSE: We think China is different. We have added another reference to support this that mentions how, “many promotion schemes in China simply tally up a researcher's total SCI publications without regard to impact factor”. This new reference also identifies a “flourishing academic black market” in selling authorship in China.

o “We are not convinced that such a solution would be effective, but we suggest it because if peer review is something that becomes measured and acknowledged, this task is likely to become yet another metric for academics to try to achieve.” I believe it is already an official expected measure in Australia.

RESPONSE: Thank you, that is interesting.

o The authors could improve the discussion by making it clearer if there are any cross country comparisons on these measures.

RESPONSE: Unfortunately we are unsure what the reviewer means. Is the question about previous research or our work? We think the between country comparisons are the most interesting result in our paper, and we feel we have discussed them.

o The whole discussion would be benefit from improving the literature around their topic around international differences.

RESPONSE: We have added additional references.

o Is there any research on people paying others to do their work for them?

RESPONSE: We have added the above mentioned reference about researchers paying for authorship.

o “Submitting a paper or review is the final step in an often long process, and even when submitting out-of-hours, the bulk of the thinking and writing may have been done during working hours.” I don't see this as a limitation

RESPONSE: This is a point of debate and another reviewer did mention this as a limitation.

• The what this study adds section could be more impactful and reflect the findings. Eg The “weekend” is a misnomer for many researchers’ sounds like emotive language to me. You did not measure what researchers classify as their weekend or what a weekend means to them.

RESPONSE: Although we do not have individual data, it is still surprising to see this much work being done on weekends. Hence we do think it’s justified to use the word “misnomer”.

I cannot comment on the appropriateness of the Bayesian methods used.

**Reviewer: 3**

Good study of an important topic. My only comment to consider is whether the first bullet of the "What this study adds" section is substantiated by the results of this study: "The 'weekend' is a misnomer for many researchers" Based on these results, there is an 85% probability of not reviewing on the weekend; "many" are not submitting and reviewing on the weekend. The late-night data was quite striking to me, suggesting regular family time might be impacted.

RESPONSE: This is an interesting question about what level of work is acceptable on the weekend. This reviewer believes that 15% is acceptable, whereas others may disagree. We still feel justified in saying it is a misnomer for “many” researchers given the 15% figure, which does not mean 15% of researchers, but 15% of incidences, so it’s likely that the number of researchers working on weekends is much higher.

**Reviewer: 4**

Barnett, Mewburn, and Schroter analyze data from BMJ’s and BMJ Open’s manuscript submission system with regard to when authors submit their papers and referees their reviews. They set out to find evidence for their hypothesis of an increasing workload among academics, both as authors and reviewers, and thus of increasing numbers of submissions handed in out-of-hours, i.e., on weekends or early in the morning and late at night (defined as 6 pm-7 am) or.

Among more than 50.000 submissions and more than 70.000 reviews, approximately half of submissions and reviews were uploaded outside normal working hours, with no substantial differences between journals. However, contrary to expectations, during the observation period (2012-2019) no trend towards more out-of-hours submissions occurred. Instead, the authors found marked differences among countries of origin, as defined by authors’/reviewers’ addresses. On the basis of this study, scientists from East Asia, China in particular, worked more overtime than those from Scandinavian countries, although there is substantial variability within countries. The authors appropriately discuss several limitations (e.g., too short an observation period) and alternative explanations for their findings.

This is an inventive study on a topic of broad interest to the medical scientific community, and it seems to be well crafted (I cannot judge the statistics with certainty). I have only few comments:

1. I have difficulties in following the starting point of this endeavor, when the authors write: …the data shows that academics are publishing more and more papers (2). While reference 2 indicates an increase in scientific articles (albeit limited to Medline coverage), it does not support the authors’ claim to the extent that individual scientists publish ever more papers. In fact, the only analysis I am aware of shows no signs of increased author output (<https://www.researchtrends.com/issue-38-september-2014/publish-or-perish-the-rise-of-the-fractional-author/>).

RESPONSE: Thanks for this interesting article. We have now cited a similar recent paper that examined 40,000 researchers from 1900 to 2013 and only found a recent increase for early career researchers. We have also modified the second bullet in the “What is already known” section.

2. To me, the main finding is that there is no indication of a time trend. IMO, the authors should emphasize and discuss this finding because physician workload is a problem (or not) that deserves attention as well as discussion. In this connection, the authors may want to refer to their pre-study of PLOS ONE papers showing a trend to more submissions on weekends indeed (as stated in Barnett and co-authors’ protocol on GitHub). Much of the action (increase of weekend submissions) seems to take place before 2012.

RESPONSE: We don’t reference the PLOS ONE data because we cannot correct for between country differences and hence any difference could simply be due to an increase in numbers from one country, and we know that the number of publications from China has risen in the last two decades. Looking at the PLOS data motivated us to investigate the question using high quality data.

3. The one related study I know (because I am one of the authors) analyzed when doctors take part in print continuing medical education. Cme is different from submitting papers or reviews, but one might argue that keeping up-to-date should be part of everyday work routine, the same way doing research should be for scientists. Also, the extent of out-of-hours cme came as a surprise to me: 29% of print cme participations took place on weekends, and almost 40% during the 6 am to 7 pm stretch that the authors of the present study define as outside common working times. It therefore appears that more than 50% of cme activities happen out-of-hours, similar to the proportion shown in the present study (Christ et al. JMIR 2017; <https://www.jmir.org/2017/4/e49/> ).

RESPONSE: Thanks for this example, we have included this study.

4. Abstract: As a reader, I prefer percentages to statements, such as 1-in-7, but that maybe different with other readers.

RESPONSE: We have now used probabilities.

5. I would have welcomed a brief introduction to the term credible interval. What is its specific meaning?

RESPONSE: Agreed and added.

6. I understand the advantage of using a uniform case definition of out-of-hours, but this may introduce bias because working hours may differ by country. In most non-surgery specialties in my country, for example, work starts at 8 am. Thus, 7.30 am is out-of-hours unless doctors are on call."

RESPONSE: We have now changed our out-of-hours analysis to focus on country specific differences using continuous rather than dichotomous time.

7. The authors may want to discuss that being on call or working night shifts may interfere with the definition of overtime work, it is conceivable that doctors submit their material during work, even if it outside normal working hours. A valid counter-argument may be the difference among countries, but then it may be that in regions with fewer doctors (China?) physicians are more often on call than in those with higher numbers (Norway?).

RESPONSE: This is possible and was mentioned by the editors. Data on typical doctors’ hours would be interesting, but is beyond the scope of this paper.

8. How would the results look without China (sensitivity analysis)?

RESPONSE: We don’t believe this would add much value given that countries are already largely independent in our approach. It might shift the overall average probability, but probably not by much given that China is just one of many countries in the data.

9. More context possible? There must be more literature on workload and its trends among doctors/researchers.

RESPONSE: We have added to the introduction and included more references on workload.

**Reviewer: 5**

I enjoyed this paper quite a bit and have relatively few suggestions:

1) Stats review advisable as some of the methods are sufficiently complex that I do not feel qualified if things were done properly.

RESPONSE: The statistical methods have been reviewed by a statistical adviser for The BMJ.

2) An assumption of this paper is that the researcher is the one uploading the material. In some countries there may be better administrative support and a standard hours worker does it during standard hours even though the author was burning the midnight oil the night before finishing it. This is a limitation.

RESPONSE: This is possible, although anecdotally we believe this proportion will be small.

3) One additional analysis that would be worthwhile is to investigate whether p(out of hours posting) is a function (for the reviews, not the submissions) of the closeness to the due date. I would hypothesize that those submitting up against the deadline would be more likely to submit on weekends/wee hours but perhaps the opposite is true. Worth a look?

RESPONSE: This is an interesting idea but not the focus of the paper.

4) I am not sure that Table 3 provides sufficient information (given the null result) to warrant inclusion in the main paper. Might be better as a supplementary table (leaving room for a table/figure reporting the new analysis I suggested above!

RESPONSE: Given the importance of the lack of trend we need to give figures that show this.

Overall, however, I think this is a great Xmas issue paper and would be pleased to see it in print.

**\*\*Information for submitting a revision\*\***

Deadline: Your revised manuscript should be returned within one month.

How to submit your revised article: Log into <http://mc.manuscriptcentral.com/bmj> and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it on your computer. Once the revised manuscript is prepared, you can upload it and submit it through your Author Center. When submitting your revised manuscript, you will be able to respond to the comments made by the reviewer(s) and Committee in the space provided. You can use this space to document any changes you make to the original manuscript and to explain your responses. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewer(s). As well as submitting your revised manuscript, we also require a copy of the manuscript with changes highlighted. Please upload this as a supplemental file with file designation ‘Revised Manuscript Marked copy’. Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

When you revise and return your manuscript, please take note of all the following points about revising your article. Even if an item, such as a competing interests statement, was present and correct in the original draft of your paper, please check that it has not slipped out during revision. Please include these items in the revised manuscript to comply with BMJ style (see: <http://www.bmj.com/about-bmj/resources-authors/article-submission/article-requirements> and <http://www.bmj.com/about-bmj/resources-authors/forms-policies-and-checklists>).

Items to include with your revision (see <http://www.bmj.com/about-bmj/resources-authors/article-types/research>):

1. What this paper adds/what is already known box (as described at <http://resources.bmj.com/bmj/authors/types-of-article/research>)

2. Name of the ethics committee or IRB, ID# of the approval, and a statement that participants gave informed consent before taking part. If ethics committee approval was not required, please state so clearly and explain the reasons why (see <http://resources.bmj.com/bmj/authors/editorial-policies/guidelines>.)

3. Patient confidentiality forms when appropriate (see <http://resources.bmj.com/bmj/authors/editorial-policies/copy_of_patient-confidentiality>).

4. Competing interests statement (see <http://resources.bmj.com/bmj/authors/editorial-policies/competing-interests>)

5. Contributorship statement+ guarantor (see <http://resources.bmj.com/bmj/authors/article-submission/authorship-contributorship>)

6. Transparency statement: (see <http://www.bmj.com/about-bmj/resources-authors/forms-policies-and-checklists/transparency-policy>)

7. Copyright statement/licence for publication (see <http://www.bmj.com/about-bmj/resources-authors/forms-policies-and-checklists/copyright-open-access-and-permission-reuse>)

8. Data sharing statement (see <http://www.bmj.com/about-bmj/resources-authors/article-types/research>)

9. Funding statement and statement of the independence of researchers from funders (see <http://resources.bmj.com/bmj/authors/article-submission/article-requirements>).

10. Patient and public involvement statement

<https://docs.google.com/document/d/1djgVLEUFtPQzLpf5HyuiFcMgrNJ_o7Yb8z73zgXxXYM/e>

11. Dissemination plans: At the end of the paper please state how the results of your study have been (or will be) sent to patients and the public under the heading “Dissemination plans”. If you have prepared a lay summary eg for your funders, please include it in a supplementary file.

12. Patient confidentiality forms when appropriate

11. Please ensure the paper complies with The BMJ’s style, as detailed below:

a. Title: this should include the study design eg "systematic review and meta-analysis.”

b. Abstract: Please include a structured abstract with key summary statistics, as explained below (also see <http://resources.bmj.com/bmj/authors/types-of-article/research>). For every clinical trial - and for any other registered study- the last line of the abstract must list the study registration number and the name of the register.

Please report all outcomes that were listed in the trial registry, or explain that you will publish them elsewhere. Please clearly identify each outcome as primary, secondary, or post-hoc in the text, abstract, and any tables or figures. We expect authors to report prespecified outcomes. If outcomes in the trial registry have later been changed, please explain the reasons for the change and the dates of the change in the paper. You may report the changed outcomes, but we will expect you to also report on the originally specified outcomes unless otherwise agreed with the handling editor for your paper.

Occasionally the outcomes that are prespecified in a trial registry do not match up with those included in the trial protocol. When there are discrepancies between protocol and registry specified outcomes, we expect the paper to report and interpret the registry specified outcomes. You may also report any protocol specified outcomes, but if you do please be sure to include the date of the protocol and the point at which each outcome was added to the protocol, and explain why the registry entry differed from the protocol and why the registry was not updated to reflect any protocol changes.

c. Introduction: This should cover no more than three paragraphs, focusing on the research question and your reasons for asking it now.

d. Methods: For an intervention study the manuscript should include enough information about the intervention(s) and comparator(s) (even if this was usual care) for reviewers and readers to understand fully what happened in the study. To enable readers to replicate your work or implement the interventions in their own practice please also provide (uploaded as one or more supplemental files, including video and audio files where appropriate) any relevant detailed descriptions and materials. Alternatively, please provide in the manuscript urls to openly accessible websites where these materials can be found.

e. Results: Please report statistical aspects of the study in line with the Statistical Analyses and Methods in the Published Literature (SAMPL) guidelines <http://www.equator-network.org/reporting-guidelines/sampl/>. Please include in the results section of your structured abstract (and, of course, in the article's results section) the following terms, as appropriate:

i. For a clinical trial: Absolute event rates among experimental and control groups; RRR (relative risk reduction); NNT or NNH (number needed to treat or harm) and its 95% confidence interval (or, if the trial is of a public health intervention, number helped per 1000 or 100,000.)

ii. For a cohort study: Absolute event rates over time (eg 10 years) among exposed and non-exposed groups; RRR (relative risk reduction.)

Please report all outcomes that were listed in the trial registry, or explain that you will publish them elsewhere. Please clearly identify each outcome as primary, secondary, or post-hoc in the text, abstract, and any tables or figures. We expect authors to report prespecified outcomes. If outcomes in the trial registry have later been changed, please explain the reasons for the change and the dates of the change in the paper. You may report the changed outcomes, but we will expect you to also report on the originally specified outcomes unless otherwise agreed with the handling editor for your paper.

Occasionally the outcomes that are prespecified in a trial registry do not match up with those included in the trial protocol. When there are discrepancies between protocol and registry specified outcomes, we expect the paper to report and interpret the registry specified outcomes. You may also report any protocol specified outcomes, but if you do please be sure to include the date of the protocol and the point at which each outcome was added to the protocol, and explain why the registry entry differed from the protocol and why the registry was not updated to reflect any protocol changes.

f. Discussion: To minimise the risk of careful explanation giving way to polemic, please write the discussion section of your paper in a structured way. Please follow this structure: i) statement of principal findings of the study; ii) strengths and weaknesses of the study; iii) strengths and weaknesses in relation to other studies, discussing important differences in results; iv) what your study adds (whenever possible please discuss your study in the light of relevant systematic reviews and meta-analyses); v) meaning of the study, including possible explanations and implications for clinicians and policymakers and other researchers; vi) how your study could promote better decisions; vi) unanswered questions and future research

g. Footnotes and statements

Online and print publication: All original research in The BMJ is published with open access. Our open access policy is detailed here: <http://www.bmj.com/about-bmj/resources-authors/forms-policies-and-checklists/copyright-open-access-and-permission-reuse>. The full text online version of your article, if accepted after revision, will be the indexed citable version (full details are at <http://resources.bmj.com/bmj/about-bmj/the-bmjs-publishing-model>).