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](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.

This paper was submitted to another journal from BMJ but declined for publication following peer review. The authors addressed the reviewers’ comments and submitted the revised paper to BMJ Open. The paper was subsequently accepted for publication at BMJ Open.

(This paper received three reviews from its previous journal but only two reviewers agreed to publish their review.)

### ARTICLE DETAILS

<table>
<thead>
<tr>
<th>TITLE (PROVISIONAL)</th>
<th>“Hope you find your ‘eureka’ moment soon”: a qualitative study of parents/carers’ online discussions around allergy, allergy tests and eczema</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTHORS</td>
<td>Halls, Amy; Nunes, Dale; Muller, Ingrid; Angier, Elizabeth; Grimshaw, Kate; Santer, Miriam</td>
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### VERSION 1 – REVIEW

| REVIEWER                        | Dr. Emma Le Roux  
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<td></td>
<td>Senior Clinical Research Fellow (NIHR In-Practice), Centre for Academic Primary Care, University of Bristol, U.K.</td>
</tr>
<tr>
<td>REVIEW RETURNED</td>
<td>11-Apr-2018</td>
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| GENERAL COMMENTS | I enjoyed reading this paper, which is well-written and referenced. It is a qualitative study of online discussion forums using an inductive thematic approach, providing an in depth understanding of user’s concerns around allergy and food intolerances and their potential impact on eczema. |

**Abstract**

Conclusion -p2 Line 18-19: “The lack of consistent information currently available means parents may use online discussion forums as their key source of information.”

Whilst this study highlights the confusion around allergy in eczema, I am not certain that it can be concluded from this study that online discussion forums are parents ‘key’ source of information. The use of the work ‘key’ suggests it is their main source of information, which is difficult to conclude from examining forums alone, without further knowledge of where parents/carers are turning to.

**Introduction**

The authors have carefully researched the background, highlighting the increasing use of the internet for health information and support. The authors approach of using online forums has strengths in providing a naturalistic setting, although parents and carers using forums may have had more difficulties which limits the generalisability of the results. The authors acknowledge this.
Patients and Methods

The use of 5 years of online posts from 2 parenting forums was a strength of this study, providing both current and historical posts from many users.

I would welcome some clarity regarding:

1. What were the researchers’ credentials/occupation?
2. Which search engines were used?
3. P6, Line 10-11: For every search conducted, 15 forums were identified or three pages of results (10 per page) were evaluated. 40 different forums were identified and evaluated against chosen criteria.

   I was unclear exactly how the 40 different forums were identified, and perhaps this needs revising or a flow-chart could be included to understand how the forums were screened?
4. P6, Line 20-21: how were the search terms ‘Eczema exclusion’ and ‘eczema elimination’ developed? How were the authors satisfied that these search terms would identify relevant discussion threads?

Results

There were clearly identified themes presented with narrative from a range of forum users.

There were two paraphrased quotes, which seemed less reflective of the presented findings. The authors may wish to review their inclusion.

Firstly ‘Users who had positive experiences of allergy testing often expressed incredulity that other families were unaware of such services, or unable to access them’(p12 line 10-11)

F2-P29-1
My son is just over a year old now. He has had allergies since we started weaning him at 6 months. The cow’s milk protein allergy we knew about because he got hives from that straight away. We ended up seeing a specialist because of his eczema and they did allergy testing, but they could only test for the standard stuff like nuts, fish, dairy and so on. We didn’t know that we had to bring samples of the food we suspect with us to the clinic. Good luck to you, I hope you get to the bottom of your son’s symptoms.

Secondly ‘Some parents encouraged others to ‘insist on’ a referral, even where they appeared unaware of the symptoms that other users’ children were experiencing, and seemed to assume they were similar to their own.’(p15 line 1-3)

F2-P11-2
Food triggers for us are pretty quick – if he has tomatoes, dairy or lemon he scratches almost immediately. Same for me if I have dairy as I’m still breast feeding him, and he gets a reaction through my milk. We’ve not been allergy tested yet – doctor said that as he seems to have a reaction then
**Discussion**

Well written with conclusions justified by the results. The striking confusion in the terminology around allergy, diverse beliefs around allergy testing, and parental/carer perception of healthcare professionals disinterest in allergy testing, suggests there are large gaps in clinical practice in this area, causing parents/carers to seek online forum support and information.

Minor point:

P17 Line 3 – typo: ‘English’(37), oand often faster than through healthcare providers as users can search for

### REVIEWER

**Professor Neil Coulson**  
University of Nottingham, England

**REVIEW RETURNED**  
13-Apr-2018

### GENERAL COMMENTS

This is a very well written manuscript that reports a unique study reporting novel data obtained from public online discussion forums for allergy etc. In short, this study is fascinating and the team have done an excellent job in reporting it. I have only a few very minor points, which can be easily addressed:

1. Internet Use - 2016 data is reported in the Introduction, could this be updated to at least the 2017 data (available from ONS)
2. Please include all the search terms - clearly more were used but not reported.
3. Greater clarity on the inclusion criterion, notable the 'activity' - what does this actually mean? Were there any exclusion criterion?
4. What was the actual number of messages included in the data set?
5. Could the team report the range in number of messages, presumably from 1 to X, and reassure that the messages were not generated by a very select few concerned parents etc.

As I say, these are very minor points and I congratulate the team on their excellent study and very clear write up. This study is of considerable interest and worthy of publication (subject to addressing these minor points). Many thanks for the opportunity to review.

### REVIEWER

**Dr Lavanya Diwakar**  
University of Birmingham, UK

I am collaborating with Dr Elizabeth Angier (One of the co-authors) on a project

**REVIEW RETURNED**  
30-May-2018

### GENERAL COMMENTS

Thank you for asking me to review this paper. In my opinion, there are not enough qualitative studies in the field of allergy and asthma. The study addresses themes identified from JLA PSP, which is commendable. Further, it appears that the first author is a medical student - the effort put into the study and the paper should be commended.

That being said, I have a few concerns regarding the methodology of this study.

1. The basis for choosing the two web forums is not clearly
described. The authors say that they used terms ‘such as’ eczema and elimination without giving any details.

2. The search terms should perhaps have included ‘allergy’ or ‘food allergy’ alongside eczema?

3. It was not clear why the dates Jan 2011 to Oct 2016 were chosen. Why were only the first 3 pages of results considered? In my opinion, looking at discussion threads until data saturation is achieved would have been a better strategy.

4. The coding in this study appears more deductive than inductive (or is at the very least, a combination of both)

5. The analysis method was not mentioned. I suspect the authors used the framework method.

5. Some of the quotes do not fit in the themes mentioned. For example, the quote on page 10 (F2-P7-1)and page 12 (F2-P29-1)

6. There are a lot of quotes in the paper that suggest that parents get very conflicting advice from clinicians. This is not addressed in the paper.

VERSION 1 – AUTHOR RESPONSE

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<td>Thank you for this comment. We agree that ‘key’ may suggest ‘main’, and we do not know this for sure. We have edited this to read ‘an important source of information’ to reflect how we believe parents are using the forums, but allowing that information may be obtained elsewhere.</td>
</tr>
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have had more difficulties which limits the generalisability of the results. The authors acknowledge this.

Patients and Methods

The use of 5 years of online posts from 2 parenting forums was a strength of this study, providing both current and historical posts from many users.

I would welcome some clarity regarding:

1. What were the researchers’ credentials/occupation?

We have added in credentials under ‘Data retrieval’ which now reads as follows:

In October 2016 a scoping review was conducted (by DN, a medical student, supervised by MS, a GP, and AH, a research fellow, both with qualitative expertise) to identify relevant forums.

2. Which search engines were used?

We have amended this sentence to include the search engines Google and Bing.

3. P6, Line 10-11: ‘For every search conducted, 15 forums were identified or three pages of results (10 per page) were evaluated. 40 different forums were identified and evaluated against chosen criteria’

I was unclear exactly how the 40 different forums were identified, and perhaps this needs revising or a flow chart could be included to understand how the forums were screened?

We have altered the wording to make it clear that this process only identified 40 forums.

P.6: For every search conducted, 15 forums were identified or three pages of results (10 per page) were evaluated. This process identified 40 different forums, which were evaluated against chosen criteria (format, registration requirements, internal search functions, activity (how frequent posts were, such as daily, weekly, monthly), commercial interests, site moderation, and the exclusion of non-UK based forums).

4. P6, Line 20-21: how were the search terms ‘Eczema exclusion’ and ‘eczema elimination’ developed? How were the authors satisfied that these search terms would identify relevant discussion threads?

We have added to ‘Data retrieval’ that these search terms were identified after initial scoping exercises. The criteria included: format, registration requirements, internal search functions, activity, commercial interests and site moderation (see appendix).

Results

There were clearly identified themes presented with narrative from a range of forum users.

Thank you, we have made these changes and left in the other data excerpts that more clearly reflect these findings.
There were two paraphrased quotes, which seemed less reflective of the presented findings. The authors may wish to review their inclusion.

Firstly 'Users who had positive experiences of allergy testing often expressed incredulity that other families were unaware of such services, or unable to access them’ (p12 line 10-11)

F2-P29-1

My son is just over a year old now. He has had allergies since we started weaning him at 6 months. The cow’s milk protein allergy we knew about because he got hives from that straight away. We ended up seeing a specialist because of his eczema and they did allergy testing, but they could only test for the standard stuff like nuts, fish, dairy and so on. We didn’t know that we had to bring samples of the food we suspect with us to the clinic. Good luck to you, I hope you get to the bottom of your son’s symptoms.

Secondly ‘Some parents encouraged others to ‘insist on’ a referral, even where they appeared unaware of the symptoms that other users’ children were experiencing, and seemed to assume they were similar to their own.’ (p15 line 1-3)

F2-P11-2

Food triggers for us are pretty quick – if he has tomatoes, dairy or lemon he scratches almost immediately. Same for me if I have dairy as I’m still breast feeding him, and he gets a reaction through my milk. We’ve not been allergy tested yet – doctor said that as he seems to have a reaction then take those things out of his diet

Discussion

Well written with conclusions justified by the results. The striking confusion in the terminology around allergy, diverse beliefs around allergy

Thank you very much for this comment.
testing, and parental/carer perception of healthcare professionals disinterest in allergy testing, suggests there are large gaps in clinical practice in this area, causing parents/carers to seek online forum support and information.

P17 Line 3 – typo: ‘English’(37), oand often faster than through healthcare providers as users can search for

This has been corrected, thank you.

Reviewer 2 Professor Neil Coulson

This is a very well written manuscript that reports a unique study reporting novel data obtained from public online discussion forums for allergy etc. In short, this study is fascinating and the team have done an excellent job in reporting it.

Thank you very much for this comment.

Internet Use - 2016 data is reported in the Introduction, could this be updated to at least the 2017 data (available from ONS)

This has been updated to 2017. There is a drop of 2 percentage points compared with 2016 but apparently this is due to a difference in sampling.

2. Please include all the search terms - clearly more were used but not reported.

Thank you for this observation. We have edited this sentence so it now reads as follows: “The terms ‘eczema + exclusion’ and ‘eczema + elimination’ were entered into two search engines (Google and Bing).”

Greater clarity on the inclusion criterion, notable the ‘activity’ - what does this actually mean?

We have rewritten this section and hope that it is now clearer that ‘activity’ refers to how frequent posts were:

“The process identified 40 different forums which were evaluated against chosen criteria (format, registration requirements, internal search functions, activity (how frequent posts were, such as daily, weekly, monthly), commercial interests, site moderation, and the exclusion of non-UK based forums).”

Were there any exclusion criterion?

We excluded forums we knew to be based somewhere other than the UK, given the variety of healthcare systems globally. However, we can see from the forum posts that some users are not currently based in the UK (from the content in their posts). Generally, though, we are confident that the forums were UK-centric, as were their users.

“40 different forums were identified and
evaluated against chosen criteria (format, registration requirements, internal search functions, activity (how frequent posts were, such as daily, weekly, monthly), commercial interests, site moderation, and the exclusion of non-UK based forums)."

What was the actual number of messages included in the data set?

We have added Table 1 to page 8, which shows (per forum) the number of pages of text, the total number of included threads, included posts per thread and total included users per thread.

Could the team report the range in number of messages, presumably from 1 to X, and reassure that the messages were not generated by a very select few concerned parents etc.

Reviewer 3 Dr Lavanya Diwakar

Thank you for asking me to review this paper. In my opinion, there are not enough qualitative studies in the field of allergy and asthma. The study addresses themes identified from JLA PSP, which is commendable. Further, it appears that the first author is a medical student - the effort put into the study and the paper should be commended.

Thank you for this comment. We have clarified the role of the researchers under ‘Patient and Methods’ as requested by one of the other reviewers. The medical student was DN.

The basis for choosing the two web forums is not clearly described. The authors say that they used terms ‘such as’ eczema and elimination without giving any details.

Thank you for this observation. We have edited this sentence so it now reads as follows: “The terms ‘eczema + exclusion’ and ‘eczema + elimination’ were entered into two search engines (Google and Bing).”

The search terms should perhaps have included ‘allergy’ or ‘food allergy’ alongside eczema?

We did not include these search terms as there are children with eczema who also have food allergy. We were less interested in this group than in people who children had eczema and were looking for information about dietary exclusions. However, we can see that these terms may have been helpful, although potentially time-consuming to filter relevant from irrelevant posts. We have added to the ‘strengths and limitations’ in the discussion:

‘The searches identified a large quantity of relevant information, although it is possible that using different search terms may have yielded different findings.’

It was not clear why the dates Jan 2011 to Oct 2016 were chosen. Why were only the first 3 pages of results considered? In my opinion,

The discussion forums contained a vast amount of data so in order to keep the quantity of data manageable the decision was made to
looking at discussion threads until data saturation is achieved would have been a better strategy.

limit data extraction to posts from the start of 2011 to the present time when searches were run.

The coding in this study appears more deductive than inductive (or is at the very least, a combination of both)

We used an inductive approach to analysing the data, as described in the ‘data analysis’ section of the Methods.

The analysis method was not mentioned. I suspect the authors used the framework method.

We conducted an inductive thematic analysis, as described in the ‘data analysis’ section of the Methods.

Some of the quotes do not fit in the themes mentioned. For example, the quote on page 10 (F2-P7-1) and page 12 (F2-P29-1) 6. There are a lot of quotes in the paper that suggest that parents get very conflicting advice from clinicians. This is not addressed in the paper.

Thank you for highlighting this – we agree some quotes illustrate themes more succinctly. We have therefore removed quote F2-P7-1 on p10 and F2-P29-1 on p12 (the latter was removed at the suggestion of reviewer 1 as well).

We have not further drawn out the theme regarding conflicting advice from clinicians as this paper is already quite long. Previous qualitative papers have demonstrated that conflicting advice is a problem for people with eczema and we have added this point to the Discussion.

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**VERSION 2 – REVIEW**

**REVIEWER**
Professor Neil S. Coulson  
University of Nottingham, UK.

**REVIEW RETURNED**
08-Aug-2018

**GENERAL COMMENTS**
I would like to thank the team for addressing all the relatively minor concerns I had with the previous version. I am now very happy to recommend this very important and interesting study for publication.