

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)	The Prevalence of Acne in Mainland China: a systematic review and meta-analysis
AUTHORS	Li, Dan; Chen, Qiang; Liu, Yi; Liu, Ting; Tang, Wen; Li, Sheng

VERSION 1 - REVIEW

REVIEWER	Robert Dellavalle U. of Colorado School of Medicine
REVIEW RETURNED	12-Dec-2016

GENERAL COMMENTS	<ol style="list-style-type: none">1. Nice to see the PRISMA checklist for this paper-makes reviewing it much simpler.2. Item 5 on PRISMA--lack of original and registration should be listed as a limitation of the study in the discussion. (The authors should try to register the review now if that will be allowed.)3. The IHME GBD researchers might be interested in these results and collaboration with these authors--they should contact that institution via their website.4. On page 12 line 57 humidity is listed as item 2--what is item 1?5. Figure legends are needed. They will need to provide adequate detail to explain the contents of the figures in a stand alone fashion. e.g. "event rate"= rate of what event?
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REVIEWER	Hiram Larangeira de Almeida Jr Federal and Catholic University of Pelotas, Brazil
REVIEW RETURNED	10-Jan-2017

GENERAL COMMENTS	<p>The paper has useful information about acne in China. Comments:</p> <ol style="list-style-type: none">1. In Title , you did not mention "Meta-analysis".2. In limitations - you wrote "capture of the demographic for more than 80 thousand people", better to say that your sample was composed of ... Moreover due to heterogeneity among papers, your sample changed from variable to variable.3. In methods - " the studies were classified into three groups based upon the age of the participants in the samples, overall, undergraduate, and primary and secondary students ("p and s")." The age of primary and secondary students may vary from country to country, the international community may be not aware of these characteristics in China. Better to provide the age range of each group.4. In discussion : "In the present study, males (39.7%) had a 1.217 times higher prevalence rate of acne than did females (35.7%, Z=3.903, p<0.001). " Could you check this "1.217 times" ?
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	5. In discussion "In several studies on acne, smoking appeared to be a strong disease-promoting factor ", since you did not assessed smoking, you should remove it from discussion. 6.Funnels plots have no legends.
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REVIEWER	Dr. Devinder Mohan Thappa Dr. DM Thappa, MD, DHA, FRCP (Glasg), FAMS, FIMSA, Professor and Head, Dermatology and STD Department, JIPMER, Pondicherry-605006, India
REVIEW RETURNED	16-Jan-2017

GENERAL COMMENTS	<p>Introduction: Focus on epidemiological aspects and variations in disease characteristics</p> <p>Methodology: Explain primary and secondary students, whether they are school students which age group they represent. What are undergraduates, which age group they represent.</p> <p>Results: Remove some tables and figures which are required for analysis, their brief may be included in the results</p> <p>Discussion: Compare your data with Asian countries in particular and other countries too. English language need attention.</p> <p>"Conclusion This systematic review will provide current evidence on the epidemiology of acne and its association between acne and gender, region and age,. The evidence generated from this paper may prove beneficial in terms of preventing skin lesion and improving the quality of life."</p> <p>Provide conclusion based on your study</p> <p>References: Need corrections as per journal style. Check reference 4</p>
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VERSION 1 – AUTHOR RESPONSE

Response to Reviewer #1

1. The reviewer's comment:

Nice to see the PRISMA checklist for this paper-makes reviewing it much simpler.

The authors' answer: Thank you.

2. The reviewer's comment:

Item 5 on PRISMA--lack of original and registration should be listed as a limitation of the study in the discussion. (The authors should try to register the review now if that will be allowed.)

The authors' answer: Thank you for your advice sincerely. We have filled in the details required by the system, we are in the process of registering this review but it will take some time.

3. The reviewer's comment:

The IHME GBD researchers might be interested in these results and collaboration with these authors- they should contact that institution via their website.

The authors' answer: Thank you for your advice sincerely. It would be a great honor if we could have the chance to collaborate with IHME GBD researchers and contribute to disease control.

4. The reviewer's comment:

On page 12 line 57 humidity is listed as item 2--what is item 1?

The authors' answer: Thank you for pointing this out. This part mainly discussed the different prevalence rates of acne in different regions. We put forward 3 factors that may lead to the difference, including climate, humidity and diet. Due to the long length of this part, item 1 is climate and is listed on page 11 line 25.

5. The reviewer's comment:

Figure legends are needed. They will need to provide adequate detail to explain the contents of the figures in a stand alone fashion. e.g. "event rate" = rate of what event?

The authors' answer: Thank you for your advice. Figure legends and adequate details to explain the contents of the figures have been added in the revised version.

Response to Reviewer #2

Reviewer #2 (Comments to the Author):

The paper has useful information about acne in China.

1. The reviewer's comment:

In Title , you did not mention "Meta-analysis".

The authors' answer: Thank you for pointing this out. A precise title of this paper, "The Prevalence of Acne in Mainland China: a systematic review and meta-analysis", has been changed for the paper.

2. The reviewer's comment:

In limitations - you wrote "capture of the demographic for more than 80 thousand people", better to say that your sample was composed of ... Moreover due to heterogeneity among papers, your sample changed from variable to variable.

The authors' answer: Thank you for your advice. We have optimized this sentence according to your suggestion and we will check the whole paper to improve its readability.

3. The reviewer's comment:

In methods - " the studies were classified into three groups based upon the age of the participants in the samples, overall, undergraduate, and primary and secondary students ("p and s")." The age of primary and secondary students may vary from country to country, the international community may be not aware of these characteristics in China. Better to provide the age range of each group.

The authors' answer: Thank you for your advice. The age of primary and secondary students ranged from 7 to 17 years. The age of undergraduate students ranged from 18 to 23 years. The age of the overall population had no limits.

4. The reviewer's comment:

In discussion : "In the present study, males (39.7%) had a 1.217 times higher prevalence rate of acne than did females (35.7%, $Z=3.903$, $p<0.001$). " Could you check this "1.217 times" ?

The authors' answer: Thank you for your advice. We recognize this important problem and have rechecked our data. Correction has been made in the revised version. We have corrected that males (39.7%) had a 1.112 times higher prevalence rate of acne than did females (35.7%, $Z=3.903$, $p<0.001$), and we have checked the whole paper to avoid similar errors.

5. The reviewer's comment:

In discussion "In several studies on acne, smoking appeared to be a strong disease-promoting factor ", since you did not assessed smoking, you should remove it from discussion.

The authors' answer: Thank you for your suggestion for making improvements to our manuscript and we agree with your suggestion. This sentence has been removed from the discussion.

6. The reviewer's comment:

Funnels plots have no legends.

The authors' answer: Thank you for your advice. Figure legends of funnel plots has been added into the revised version.

Response to Reviewer #3

1. The reviewer's comment:

Introduction: Focus on epidemiological aspects and variations in disease characteristics.

The authors' answer: Thank you for your suggestion to make our paper more comprehensive. We have collected more epidemiological data in regard to acne and supplemented with description on the characteristics of acne.

2. The reviewer's comment:

Methodology: Explain primary and secondary students, whether they are school students which age group they represent. What are undergraduates, which age group they represent.

The authors' answer: Thank you, we have included the age of the primary and secondary students (range 7 to 17 years); and undergraduate students (range 18 to 23 years) in the paper. The overall age had no limits.

3. The reviewer's comment:

Results: Remove some tables and figures which are required for analysis, their brief may be included in the results.

The authors' answer: Thank you for your advice sincerely. Some tables and figures have been removed and listed in the results.

4. The reviewer's comment:

Discussion: Compare your data with Asian countries in particular and other countries too. English language need attention.

The authors' answer: Thank you for your advice for making improvements on our manuscript. Additional comparison and analysis between our data and other countries, in particular Asian countries have been added in the discussion.

5. The editor's comment:

"Conclusion This systematic review will provide current evidence on the epidemiology of acne and its association between acne and gender, region and age,. The evidence generated from this paper may prove beneficial in terms of preventing skin lesion and improving the quality of life."

Provide conclusion based on your study

The authors' answer: Thank you for your suggestion. We have edited the conclusion to "The evidence generated from this paper may prove beneficial in terms of understanding the age and regional distribution and prevalence rates of acne amongst the Chinese population, which may help in identifying target prevention and treatment strategies for this cohort of patients.

6. The editor's comment:

References: Need corrections as per journal style. Check reference 4

The authors' answer: Thank you for your advice. References have been revised.

Response to Associate Editor

1. The editor's comment:

1) Please provide affiliations for all authors on the submission system.

The authors' answer: Detailed affiliations for all authors have been completed on the submission system.

2. The editor's comment regarding PRISMA checklist

A) Please don't include the text in your PRISMA checklist - leave in the original recommendations, and include the page numbers.

B) You don't need to include the PRISMA-P checklist.

The authors' answer: Thank you. We have made the PRISMA checklist more concise and resubmitted it. In addition, we have removed the PRISMA-P checklist.

3. The editor's comment:

Please include the full search strategy.

The authors' answer: We have modified the search strategy further and a more complete search strategy has been added in the revised version. We have submitted the search strategy as supplementary table 1.

4. The editor's comment:

The Strengths and Limitations section should consist of bullet points.

The authors' answer: Thank you for your advice. We have simplified this part and highlighted the key points.

5. The editor's comment:

Where there any tools used in the risk of bias/quality assessment?

The authors' answer: Thank you for your advice. Four key criteria 1, 2 were used by two independent investigators (Qiang Chen and Danhui Li) to estimate study quality. The two reviewers carefully assessed the included studies independently by manual account and had to agree on the final grading. Moreover, to examine the authenticity of data, Egger test and Funnel plots were made by Comprehensive Meta-Analysis version 2.0.

References

1. Shen Y, Wang T, Zhou C, et al. Prevalence of acne vulgaris in Chinese adolescents and adults, a community-based study of 17,345 subjects in six cities. *Acta Derm Venereol* 2012;92: 40-44.

2. Law MPM, Chuh AAT, Lee A, et al. Acne prevalence and beyond, acne disability and its predictive factors among Chinese late adolescents in Hong Kong. *Clin Exp Dermatol* 2010;35:16-21.

6. The editor's comment:

Please make sure it is all written in the same tense.

The authors' answer: Thank you for pointing this out. We have rechecked the paper and made sure that it is all written in the same tense.

7. The editor's comment:

Please discuss limitations of the study and study design in the discussion section.

The authors' answer: Thank you for your advice. Limitations of the study and study design has been added in the discussion section.

VERSION 2 – REVIEW

REVIEWER	Robert Dellavalle U. of Colorado School of Medicine
REVIEW RETURNED	21-Feb-2017

GENERAL COMMENTS	The authors have addressed my previous concerns.
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REVIEWER	Hiram Larangeira de Almeida Jr Federal and Catholic University of Pelotas, Brazil
REVIEW RETURNED	21-Feb-2017

GENERAL COMMENTS	The suggested changes were performed.
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REVIEWER	Dr. DM Thappa, MD, DHA, FRCP (Glasg), FAMS, FIMSA, Professor and Head, Dermatology and STD Department, JIPMER, Pondicherry-605006, India
REVIEW RETURNED	21-Feb-2017

GENERAL COMMENTS	Spelling mistakes- vulgaris, comedones, Propionibacterium acnes (put in italics), ultraviolet In the discussion as well in results, analyse the role of pollution on acne in China
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VERSION 2 – AUTHOR RESPONSE

Response to Reviewer #3

1. The reviewer's comment:

Spelling mistakes - vulgaris, comedones, Propionibacterium acnes (put in italics), ultraviolet.

The authors' answer: Thank you for your advice. We have rechecked the spelling of the paper and invited a native English speaking colleague to copyedit the manuscript.

2. The reviewer's comment:

In the discussion as well in results, analyse the role of pollution on acne in China.

The authors' answer: Thank you for your suggestion for making improvements to our manuscript and we agree with your suggestion. The role of pollution on acne have been added to the discussion. We would further study the role of pollution systematically in subsequent studies.