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)	Children's experiences of Chronic Fatigue Syndrome/Myalgic Encephalomyelitis (CFS/ME): A systematic review and meta-ethnography of qualitative studies.
AUTHORS	Parslow, Roxanne; Harris, Sarah; Broughton, Jessica; Alattas, Adla; Crawley, Esther; Haywood, Kirstie; Shaw, Ali

VERSION 1 - REVIEW

REVIEWER	Samantha Johnston Griffith University, Australia
REVIEW RETURNED	06-Jun-2016

GENERAL COMMENTS	Thank you authors for an investigation into paediatric CFS, an area that is rarely summarised. The authors are to be commended for well-performed methodology in regards to a systematic review. However, I do believe the manuscript requires some considerable reworking in order for this systematic review to have an impact. 1. I did find that the manuscript does not read well in its current form, the sentence structure is far too short at times. This needs to be rechecked for flow as it currently reads as a dot point summary in many sections of the manuscript. 2. While I can understand what the authors are trying to achieve and their rationale for synthesising qualitative studying, I think the paper still remains too broad in its concepts. This may be addressed by 3. 3. The introduction needs far greater detail about the challenges in defining and diagnosing CFS to demonstrate further why this study is of significance. Currently, the discussion talks about previous research. This should be in the introduction to show readers the topic, as you are in fact introducing the audience to what has been done and what your particular goal is. 4. The discussion, needs far greater detail and summarising of its findings. Currently, it is simply a repeat of the findings. When you revisit the literature and previous research, they need to be discussed in a way that you make direct comparisons to your findings. You need to hilight if anything you found was of difference, or confirmed anything else that is out there. Furthermore, you need to highlight future directions of this research if it is to make an impact in the field.

REVIEWER	Kei Mizuno RIKEN Center for Life Science Technologies Japan
REVIEW RETURNED	14-Jun-2016

GENERAL COMMENTS	Dear Ms. Fay Pearson, The BMJ Open Managing Editor Thank you for the opportunity to review the manuscript. Manuscript ID: bmjopen-2016-012633 Title: Children's experiences of Chronic Fatigue Syndrome/Myalgic Encephalomyelitis (CFS/ME): A systematic review and meta-ethnography of qualitative studies. This systematic review is valuable for understanding the characteristics of CFS/ME. However, I think that additional results are needed. Authors selected 10 studies involving 82 children: half of the studies did not specify the CFS/ME diagnostic criteria and half used the CDC and NICE criteria. In addition to results from the 10 studies, although sample size is small, authors should investigate the characteristics based on reliable data from CFS/ME patients who diagnosed by CDC and NICE criteria. I think that whether this paper is acceptable for the publication of the BMJ Open depends on the revised version.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Thank you authors for an investigation into paediatric CFS, an area that is rarely summarised.
The authors are to be commended for well-performed methodology in regards to a systematic review.
However, I do believe the manuscript requires some considerable reworking in order for this systematic review to have an impact.

Thank you very much.

1. I did find that the manuscript does not read well in its current form, the sentence structure is far too short at times. This needs to be rechecked for flow as it currently reads as a dot point summary in many sections of the manuscript.

Thank you, we agree. We struggled to keep this large complicated review within the word limit. We have been through the manuscript and amended sections where very short sentences appear and have rephrased them to make them easier to read. We feel the paper now reads better. Please see 'tracked changes' for all changes but examples are included below:

Results (page 13):
A number of undesirable emotions are described across the studies including: irritability, sadness, worry, anxiety and depression 42 43 45 47 48. and this can add further burden to the negative experience of the illness.

Results (page 15):
Many of the studies reported that children were not believed about their fatigue 43 46 48 and this introduced difficulties into relationships with children's own families, friends as well as outside of their home 42.

2. While I can understand what the authors are trying to achieve and their rationale for synthesising qualitative studying, I think the paper still remains too broad in its concepts. This may be addressed

by 3.
3. The introduction needs far greater detail about the challenges in defining and diagnosing CFS to demonstrate further why this study is of significance. Currently, the discussion talks about previous research. This should be in the introduction to show readers the topic, as you are in fact introducing the audience to what has been done and what your particular goal is.

We agree. Previous research outlining the problems with diagnosis in adult CFS/ME has been added to the introduction:

Introduction (page 6):
GPs have been found to be reluctant to diagnose CFS/ME and to hold negative attitudes towards CFS/ME patients 17-20. A recent meta-synthesis identified barriers to the diagnosis and management of adults with CFS/ME including: working within the biomedical model lead to scepticism over the existence of the illness, a lack of understanding and knowledge of specialist services resulted in failure on the part of GPs to validate and diagnose a patient's illness and further frustration on the part of patients21

4. The discussion, needs far greater detail and summarising of its findings. Currently, it is simply a repeat of the findings. When you revisit the literature and previous research, they need to be discussed in a way that you make direct comparisons to your findings. You need to highlight if anything you found was of difference, or confirmed anything else that is out there. Furthermore, you need to highlight future directions of this research if it is to make an impact in the field.

Thank you, we have re-designed paragraphs 3,4 & 5 on page 22-24 to make the discussion of the literature clearer..

We have added the following to the discussion of findings:

Page 22:
Feeling disbelieved was a key construct in this synthesis and 'social loss' had the most second order constructs across studies. The physical and social limitations of children living with CFS/ME are similar to those with juvenile idiopathic arthritis, chronic kidney disease and cystic fibrosis who also experience loss of control over their bodies and social isolation 64-66. However, in this synthesis the disbelief and stigma that surround CFS/ME act to exacerbate the social isolation children experience due to their physical limitations. The International Classification of Functioning, Disability and Health 67 regards stigma as a key factor limiting participation that go beyond the activity limitations resulting from physical impairment. Social isolation was also prolonged for children in this synthesis due to the lack of understanding from schools making reintegration difficult.

Page 23:
Whilst previous research has described increased rates of psychiatric co-morbidity in young people with CFS/ME69, our synthesis demonstrated how the high emotional burden of CFS/ME along with the unclear prognosis of the disease can lead to identity confusion. Children may be unable to perform at school and their aspirations are disrupted and as the course of the illness and recovery is unclear, the future remains uncertain. Disbelief from others has been found to jeopardise a patient's sense of identity in the synthesis of qualitative research in adults with CFS/ME 34 35. Childhood is a time of developmental growth influenced by peers, family and the education system70 and similarly in this synthesis, as children with CFS/ME experience scepticism from others, this acts as a key barrier to forming a coherent identity. Acceptance has been found to be important for adjusting to a life with CFS/ME [70].

We have added the following paragraph to discuss diagnosis in more detail (page 24):
However, this synthesis also revealed that simply getting a diagnosis may not be enough as it is still not considered a 'proper illness' and stigma remains. Post diagnosis, good communication between healthcare providers and schools is an important facilitator in which key individuals and settings in the child's social network can be educated about the condition, to enable them to support children to cope with living with CFS/ME. In addition to general support from GPs, children and their families require specialist management and advice on activity from health professionals to help them manage their condition and function in the different spheres of their lives.

We outline that an important area for future research is to understand how children define recovery. We state:

Most studies explored the experiences of children who were currently ill. In a condition with no physiological marker of recovery, future research is needed to understand how children define recovery.
In order to make more impact on the field, we have made clearer references for the need for better recognition and diagnosis in primary care:

Conclusion (page 22):
Physical, social, emotional and impact on the self-dimensions should be included when treating and measuring outcomes from healthcare in paediatric CFS/ME. There is a need for better recognition and diagnosis of CFS/ME and advice on activity management by health professionals including those working in primary care. Improved public awareness and understanding of the condition may enable more acceptance of children with CFS/ME within their social networks. Our synthesis highlights the benefits of peer support from other patients with CFS/ME, where children and their families can use access support groups (e.g. AYME).

Abstract (page 4):
There is a need for greater recognition and diagnosis of childhood CFS in primary care, specialist advice on activity management and improved communication between health and education providers to help children cope with their condition.

Reviewer: 2

This systematic review is valuable for understanding the characteristics of CFS/ME. However, I think that additional results are needed.

Thank you.

1. Authors selected 10 studies involving 82 children: half of the studies did not specify the CFS/ME diagnostic criteria and half used the CDC and NICE criteria. In addition to results from the 10 studies, although sample size is small, authors should investigate the characteristics based on reliable data from CFS/ME patients who diagnosed by CDC and NICE criteria.

Thank you. We were careful to exclude papers where diagnosis of CFS/ME was not clearly reported. However, you are correct, half the studies failed to report the actual diagnostic criteria used. We have reviewed this and performed a 'sensitivity analysis', removing the constructs from the studies that did not specify a diagnostic criteria. However, the results do not change as all the themes reported in these papers are additionally reported in the studies that remain included.

We have added the following to the results (page 12):

"We also explored whether the results changed if we only included the studies where it was clear that children were diagnosed using the CDC or NICE criteria. We found that exclusion of studies with no clear reporting of diagnostic criteria did not change the results of the synthesis as the themes reported in the excluded studies simply supported those identified in the included studies."

And the following to the discussion (page 23):

Similarly, removal of studies with no clear reporting of diagnostic criteria did not alter the results.

VERSION 2 – REVIEW

REVIEWER	Samantha Johnston Griffith University, Australia
REVIEW RETURNED	11-Aug-2016

GENERAL COMMENTS	Thank you authors for the significant revisions that have improved the quality of your paper. My only remaining comment is to check again for grammer particularly in the abstract.

REVIEWER	Kei Mizuno RIKEN and Japan
REVIEW RETURNED	22-Aug-2016

GENERAL COMMENTS	I think that this paper is acceptable for the publication of the BMJ Open.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1
Thank you authors for the significant revisions that have improved the quality of your paper. My only remaining comment is to check again for grammar particularly in the abstract.

Thank you, we have been through the manuscripts and reviewed the grammar. Please see tracked changes.