PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Access to medicines by child refugees in the East Midlands region of England – a cross-sectional study
AUTHORS	Choonara, Imti; Alkhatani, Saad; Cherrill, Janine; Millward, Claire; Grayson, Keith; Hilliam, Rachel; Sammons, Helen

VERSION 1 - REVIEW

REVIEWER	Louise Condon University of the West of England, Bristol, UK
REVIEW RETURNED	12-Sep-2014

GENERAL COMMENTS	1. The objective is clearly expressed, but I would query whether 'access to health care' is a correct definition for what was done, namely establishing whether participants were registered with a GP. 'Access to health care' seems a rather ambitious term as being registered with a GP does not necessarily mean that parents and children do have access to healthcare. Barriers such as language difficulties and stigma could reduce refugees' ability to access health care as has been demonstrated in other studies of ethnic minorities' use of health services; in this study some participants referred to language problems and also travel costs which reduced access to GP services. 2. The abstract again is clearly written but does gloss over some details which need further explanation. For instance, it would be useful to be clear about who exactly the 'refugees' were. In the text it is stated that they are parents known to Refugee Action and that 'most refugees' were from Iraq, Pakistan, Afghanistan and Nigeria. This suggests a potentially large range of countries- more clarity about which countries participants were from would help the reader in interpreting the validity and significance of the findings. The authors make statements about 'refugees' and 'refugee children', but need to do more to support these generic assumptions as study findings could relate to other factors then refugee or asylum seeker status. 3. The lack of information about demographic details in the study group and the control group weakens the study design as it is not clear how valid a comparison would be between these two groups. The control group are described as 'parents with children'- to make a comparison more information is needed about who these 'parents' are. Elsewhere they are referred to as 'British' parents but there is no indication of how this was established and the possible variety of parents in this group, including people of differing ethnic origins. 4. More detail could be provided about recruitment of the control group (how were they identified as British, were screening questions asked?) the length of all interviews, and where exactly control group interviews took place (if simply 'in the shopping centre', rather than a private room as provided for the refugee group, this raises questions about the quality of the data obtained).

	5. It is not clear whether either group completed a consent form. 11 The conclusion- ‘refugee children in the East Midlands have access to health care, medicines and a family doctor’- is perhaps too large to be supported by this study of 50 children whose parents are known to Nottingham Refugee Action and who took part in a brief structured interview. Rather than interviews being conducted with participants (as stated) it appears that a questionnaire was administered with most questions requiring ‘yes/no’ answers and little information about how much time was devoted to less structured questions (e.g. ‘what do you normally do when your child is unwell?’). Free text was allowed for questions about which medicines are given. This meant that honey was included in the refuge group as a medicine (applied topically or orally, and for what condition?) while not in the control group. As honey is not commonly viewed as a medicine it may be that parents in the control group may also have given their child honey but not considered listing this as a medicine. The results (definitive statements about prescribed and OTC medicines given to each group) do not seem to take into account that some medicines (e.g. antibiotics are always prescribed in the UK while some, e.g. herbal and honey, are rarely or never prescribed). If this is taken into account the main difference seems to lie in whether paracetamol is prescribed or not. The first line of the discussion is ‘child refuges were similar to the control group in relation to the presence of chronic medical problems and immunisation status’. Can this statement be borne out by this study, which relied on parental recall, used brief questionnaire interviews for data collection and did not check immunisation status objectively? 12 The limitations of the study group being mainly fathers and the control group being mainly mothers is not discussed. It does not appear that a question was asked about whether the parent participant was the child’s main carer so this does call into question how good this data (which relies upon parental recall) actually is. The authors point out that the refugee group were all linked to Refugee Action and comment that this may have influenced factors such as likelihood of being registered with a GP. In view of this, conclusions and key messages need to be worded less definitively and take into amount more the specific local context within this study took place.

REVIEWER	Antonio Clavenna IRCCS - Istituto di Ricerche Farmacologiche "Mario Negri", Milan, Italy
REVIEW RETURNED	17-Sep-2014

GENERAL COMMENTS	I have a couple of major comments for the authors. 1. Methods section. page 5, line 8-12. The para regarding the Chi-square test is not very clear. I would like to suggest to change in: "... to compare the proportion of children with illness, and the proportion of children receiving medicines (both prescribed and OTC)...". In fact, "number" is related to a continous variable, while chi-square test is used to compare dichotomic variables. 2. Please check the p-value reported on page 6, lines 47-48. In particular, p-value concerning the use of medicines in the previous 6 months (I think it should be 0.81).

VERSION 1 – AUTHOR RESPONSE

Reviewer Name Louise Condon

1. The objective is clearly expressed, but I would query whether 'access to health care' is a correct definition for what was done, namely establishing whether participants were registered with a GP. 'Access to health care' seems a rather ambitious term as being registered with a GP does not necessarily mean that parents and children do have access to healthcare. Barriers such as language difficulties and stigma could reduce refugees' ability to access health care as has been demonstrated in other studies of ethnic minorities' use of health services; in this study some participants referred to language problems and also travel costs which reduced access to GP services.

- We recognise the comments made by the reviewer. We have changed the objective to access to 'primary health care'. We have also highlighted in the discussion the difficulties in travel costs and language noted by the refugees (see page 7, first paragraph).

2. The abstract again is clearly written but does gloss over some details which need further explanation. For instance, it would be useful to be clear about who exactly the 'refugees' were. In the text it is stated that they are parents known to Refugee Action and that 'most refugees' were from Iraq, Pakistan, Afghanistan and Nigeria. This suggests a potentially large range of countries – more clarity about which countries participants were from would help the reader in interpreting the validity and significance of the findings. The authors make statements about 'refugees' and 'refugee children, but need to do more to support these generic assumptions as study findings could relate to other factors than refugee or asylum seeker status.

- We have provided details of the country of origin for all the refugees who took part in this study in the Results section, first paragraph.

3. The lack of information about demographic details in the study group and the control group weakens the study design as it is not clear how valid a comparison would be between these two groups. The control group are described as 'parents with children'- to make a comparison more information is needed about who these 'parents' are. Elsewhere they are referred to as 'British' parents but there is no indication of how this was established and the possible variety of parents in this group, including people of differing ethnic origins.

- We have provided additional information within the Methods section in relation to the control parents who were specifically asked whether they were British.

4. More detail could be provided about recruitment of the control group (how were they identified as British, were screening questions asked?) the length of all interviews, and where exactly control group interviews took place (if simply 'in the shopping centre', rather than a private room as provided for the refugee group, this raises questions about the quality of the data obtained).

- We have provided more information within the Methods section regarding the interviews of control parents. They were asked if they were British. A specific, quiet, seated area within a local shopping centre was used and we have stated the time taken for the interviews.

5. It is not clear whether either group completed a consent form.

- Written informed consent was obtained from both groups and this has been added to the Methods

section.

A. The conclusion- ‘refugee children in the East Midlands have access to health care, medicines and a family doctor’- is perhaps too large to be supported by this study of 50 children whose parents are known to Nottingham Refugee Action and who took part in a brief structured interview.

- We agree with the reviewer and have amended our conclusion to ‘the refugee children in this study in the East Midlands had access to primary health care, medicines and a family doctor’.

B. Rather than interviews being conducted with participants (as stated) it appears that a questionnaire was administered with most questions requiring ‘yes/no’ answers and little information about how much time was devoted to less structured questions (e.g. ‘what do you normally do when your child is unwell?’). Free text was allowed for questions about which medicines are given. This meant that honey was included in the refuge group as a medicine (applied topically or orally, and for what condition?) while not in the control group. As honey is not commonly viewed as a medicine it may be that parents in the control group may also have given their child honey but not considered listing this as a medicine.

- Parents were specifically asked about over the counter medicines and herbal and homeopathic remedies were specifically asked for. If parents did not understand either of these terms this was explained to them.

C. The results (definitive statements about prescribed and OTC medicines given to each group) do not seem to take into account that some medicines (e.g. antibiotics are always prescribed in the UK while some, e.g. herbal and honey, are rarely or never prescribed). If this is taken into account the main difference seems to lie in whether paracetamol is prescribed or not.

- Paracetamol was the most widely used medicine in both groups, as shown in both tables 2 and 3. We have however, added statements in both the Results section and the Conclusions that paracetamol was the most widely used medicine and the differences between the groups also related to paracetamol.

D. The first line of the discussion is ‘child refugees were similar to the control group in relation to the presence of chronic medical problems and immunisation status’. Can this statement be borne out by this study, which relied on parental recall, used brief questionnaire interviews for data collection and did not check immunisation status objectively?

- Most health professionals when determining immunisation status would rely on the history of the parents. We therefore feel that this is an appropriate method. We have however, amended the first sentence in the Discussion to state ‘based on the answers given by the parents’.

E. The limitations of the study group being mainly fathers and the control group being mainly mothers is not discussed. It does not appear that a question was asked about whether the parent participant was the child’s main carer so this does call into question how good this data (which relies upon parental recall) actually is. The authors point out that the refugee group were all linked to Refugee Action and comment that this may have influenced factors such as likelihood of being registered with a GP. In view of this, conclusions and key messages need to be worded less definitively and take into amount more the specific local context within this study took place.

- We have worded our key messages and conclusions less definitively. We have also mentioned the gender differences in the limitations

Reviewer Name Antonio Clavenna

1. Methods section. page 5, line 8-12. The para regarding the Chi-square test is not very clear. I would like to suggest to change in: "... to compare the proportion of children with illness, and the proportion of children receiving medicines (both prescribed and OTC)...". In fact, "number" is related to a continuous variable, while chi-square test is used to compare dichotomic variables.

- We have amended the methods as suggested.

2. Please check the p-value reported on page 6, lines 47-48. In particular, p-value concerning the use of medicines in the previous 6 months (I think it should be 0.81).

- Thank you for pointing out this error. We have corrected the text.

VERSION 2 – REVIEW

REVIEWER	Louise Condon University of the West of England, Bristol
REVIEW RETURNED	18-Nov-2014

GENERAL COMMENTS	The authors have addressed many of the issues raised in the previous peer review. I have very few additional points to raise. These are: The authors state in the Strengths and Limitations (Article Summary), 'This study shows that it is possible to use the number of medicines used by children as a marker of primary healthcare'. If the authors wish to make this claim it needs to be further substantiated in the text. The paper shows that similar numbers of children in both the study group and control group were prescribed medication, but further explanation of how this relates to access to healthcare is needed. With regard to the trustworthiness of the study some supporting literature on the accuracy of parental recall of medication given would help the reader in assessing validity. When recalling the medicines and associated substances given to the child in the last 6 months, it would be hard for parents to recall exactly what was given in this time period. This additionally links to a further limitation of the study in that it was not ascertained that the parent interviewed was the main carer of the child. The authors defend the sex disparity between the study group and control group by stating that some refugees came from cultures where the man would answer questions. The authors state that it was not possible to match controls and refugee parents by gender but this could have been done by selecting more men at the shopping centre where the control group were recruited, or by selecting a control group from similar cultural backgrounds to the study group. The latter would have been difficult, however, in view of the wide range of countries (15) from which the refugee parents originated; these countries presumably have a variety of cultural norms regarding which parent would discuss child care with a researcher, so it is probably better

	for the authors to resist cultural generalisation.

VERSION 2 – AUTHOR RESPONSE

Reviewer Name Louise Condon
Institution and Country University of the West of England, Bristol
Please state any competing interests or state 'None declared': None declared

The authors have addressed many of the issues raised in the previous peer review. I have very few additional points to raise. These are:

The authors state in the Strengths and Limitations (Article Summary), 'This study shows that it is possible to use the number of medicines used by children as a marker of primary healthcare'. If the authors wish to make this claim it needs to be further substantiated in the text. The paper shows that similar numbers of children in both the study group and control group were prescribed medication, but further explanation of how this relates to access to healthcare is needed.
We have amended the wording
With regard to the trustworthiness of the study some supporting literature on the accuracy of parental recall of medication given would help the reader in assessing validity. When recalling the medicines and associated substances given to the child in the last 6 months, it would be hard for parents to recall exactly what was given in this time period.
References and discussion added (see para 3 in discussion)
This additionally links to a further limitation of the study in that it was not ascertained that the parent interviewed was the main carer of the child. The authors defend the sex disparity between the study group and control group by stating that some refugees came from cultures where the man would answer questions. The authors state that it was not possible to match controls and refugee parents by gender but this could have been done by selecting more men at the shopping centre where the control group were recruited, or by selecting a control group from similar cultural backgrounds to the study group. The latter would have been difficult, however, in view of the wide range of countries (15) from which the refugee parents originated; these countries presumably have a variety of cultural norms regarding which parent would discuss child care with a researcher, so it is probably better for the authors to resist cultural generalisation.
We have omitted the sentence about culture and included a sentence in the discussion on the gender imbalance