Author’s response to reviews

Title: Preschool children in Danish out-of-hours primary care: a one-year descriptive study of face-to-face consultations

Authors:

Jørgen Lous (jlous@health.sdu.dk)

Grete Moth (moth@ph.au.dk)

Linda Huibers (huibers@ph.au.dk)

Peter Vedsted (p.vedsted@ph.au.dk)

Morten Christensen (mbc@ph.au.dk)

Version: 1 Date: 07 Dec 2018

Author’s response to reviews:

Answer to the reviewers

FAMP-D-18-00175

Preschool children in Danish out-of-hours primary care: a one-year descriptive study of face-to-face consultations Jørgen Lous, D, MSc; Grete Moth, Senior researcher; Linda Huibers, senior researcher, MD; Peter Vedsted, Professor, ph.d.; Morten Bondo Christensen, senior researcher, GP.

BMC Family Practice

Reviewer reports:

Steinar Hunskår (Reviewer 1): This is a nicely performed and important study about preschool children’s use of out-of-hours services in Denmark. It has a random inclusion over one year, no drop outs and a good size.

I have only some minor comments, but they should all be addressed by the authors.
1. The material is somewhat old (2010-2011). This should be commented on and if there are later changes in the organization etc, this should be mentioned and implications discussed.

Response: No changes in the organization have been done. We have added a remark on that in the methods section: “The organization of OOH primary care has not been changed since data collection”.

In addition, we have added a comment in the limitations section: “The data could be considered a bit dated (2010-2011), but as no organisational changes have been made, results are expected to be valid”.

2. Likewise, the reference list has almost no recent papers. There are definitely more recent papers that could be incorporated.

Response: A new literature search found three relevant papers to include.

3. The paper uses different word for the included patients: young children, preschool children, and the definition is somewhat difficult to find. If it is children 0-5 years (<6 years), this should be used all over.

Response: We have added a definition in the method section: ”For this study we included children from 0 to 5 years of age, in this paper called children.” Our paper concerned children 0-5 years old, now referred to as children. We have checked the paper for consistency.

4. There are thus 6 year-categories. Many things may be different over this age span, and it is not investigated. I think there should be at least some comments on this, as RFE, treatments, referral etc surely may differ between the age <1 and 5-6.

Response: We have made some sub analysis on the different age groups. We found differences in referrals, but no relation to severity or treatments. In results, referral, we have written: “Children under one year of age were more often referred (12%) than children over one year of age (6%).”
In results, provided care, we have added: “The prescriptions in the different age groups varied between 20 and 34% without any trend (Table 1)”. 

5. Under the subheading Population, the selected age group is not mentioned at all. Here the definition of the included patients should be placed.

Response: We have added a description: “For this study, we included children from 0 to 5 years of age, in this paper called children”.

6. First para of Results starts with the total population and refers to Figure 1. The choice of excluding the telephone contacts is argued for here, should be in the Discussion.

Response: We make a note on this in the method section: “Because of no objective information on the diagnosis the telephone contacts are not included in the detailed analysis in this study”.

7. Also, the most remarkable difference between all patients and the children, is the difference in home visits. The implications of this must be discussed.

Response: The number of home visits is high because of the sampling technic to have comparative groups.

8. In Table 1 the time of symptoms before contact is shown. This is an important variable that is not sufficiently presented and discussed (differences between the youngest and eldest?, differences in RFA? Severity?)

Response: New analyzes have been done. Results included in the text: “We found symptom of less than 5 hours more often assessed as serious or maybe serious by the GPs (39.0%) compared to symptom of longer duration (30.7%, diff.=8.3%, CI: 3.5-13.1)”.
9. Very minor: The text varies between 0 or 1 decimal in percentages (18% vs 18.0%), it should be one decimal all over.

Response: We have adjusted accordingly.

10. Discussion of prevalence of contacts, some recent papers could be mentioned:


Under provided care:


Response: Yes relevant. Thank you for that. We have included two of these studies in our discussion.

11. The prescription of antibiotics is numerically discussed but not qualitatively; is it adequate, accord to national recommendations etc.
Response: Unfortunately, we do not have all information on the clinical examinations to relate to the national recommendations, but Table 1 shows that the GP-assessed severity was related to antibiotic prescription and not the parental assessment.

12. Table 4 could be omitted as it does not contribute to important discussions in the paper.

Response: We find the information on type of antibiotic important, when discussing prescription.

13. Likewise Figure 2 can be omitted and the overlap shortly mentioned in the text.

Response: Yes, we agree; figure 2 is now deleted.

Ruediger Leutgeb, M.D. (Reviewer 2): This article addresses an interesting topic, namely the reasons for encounter, the most common diagnoses and provided care of preschool children in Out-of-hours care (OOHC). It is certainly a challenge to assess the ailments of children in the age group of 0-5 years appropriately in the setting of OOHC, in particular because of the commonly demanding parents.

14. Insofar it is a useful addition to evaluate the satisfaction of parents in OOHC regarding the medical treatment of their children and to mention this point as a main objective of this study.

Response: We included satisfaction as a main objective.

But this article has some considerable weaknesses and questions which I have to address.

15. First of all a comprehension question regarding the chapter "Data collection and variables": Are the electronic records of the OOHC registration inaccurately?
Response: No, but the notes in the electronic patient file is not systematic organized. Therefore, we used pop-up questionnaire to the GPs.

16. The survey for GPs addresses nearly the same issues. Is the assessment of the severity of health problems the main addition of the survey because of non-according in the EPR?

Response: The GP survey includes nine questions that are additional to the information in the electronic patient record, as this information cannot be found there. So, the assessment of severity is just one of nine questions to the GPs. We have added extra text to clarify this. “The questionnaire addressed issues such as severity of health problem, diagnosis, and provided care [6] (Page 5, line 7-8).

17. Page 4, lines 18-20: You wrote," the computer system randomly selected contacts (every 10th telephone consultation, every 3rd clinic consultation and all home visits). I looked at figure 1 and tried to understand, how the figures came about. For example: 59.5% telephone contacts of 644,395 contacts are 383,415 contacts, every 10th telephone consultation would mean 38,341 selected contacts, or?

Response: Only a few of the GPs on duty that day included patients for detailed information, one for each type of shift (i.e. telephone consultation, clinic consultation and home visits). We used different selection rates (1/10, 1/3 and all), based on pragmatic estimations on the extra workload that would be realistic to put on the doctors for participating. The text has been revised accordingly. “For one GP on duty per type of shift, the computer system randomly selected contacts (every 10th telephone consultation, every 3rd clinic consultation, and all home visits) …” (paragraph Data collection and variables)

18. Page 5, lines6-8: Did you use a validated questionnaire?

Response: Yes, the questionnaire was validated before use. The Questionnaire have been used in other Danish studies. We added the following to the paragraph Data collection and variables: “Development of the GP questionnaire involved cognitive interviews of 12 GPs to improve the
face validity of the questionnaire and a pilot test, which resulted in minor changes.” (Page 5, line 7)

19. "Satisfaction" is a too complex phenomenon to be answered with just one question.

Response: We acknowledge that the concept of satisfaction may be complex and several questions should optimally address what an assessment of patients’ experience of satisfaction is based on. We actually had several questions covering the patients’ experience of the encounter. In an earlier published paper (Tranberg M, Vedsted P, Bech BH, Christensen MB, Birkeland S, Moth G. Factors associated with low patient satisfaction in out-of-hours primary care in Denmark – a population-based cross-sectional study. BMC Fam Pract. 2018 Jan 11:19(1):15), the issue of overall satisfaction has been addressed and found useful as it detects differences between groups of patients. This reference is now included in the paper.

20. Page 5, lines 10-11: You listed primary and secondary RFEs and inserted the results in Table 2. In my point of view it is of minor interest how often we can find secondary RFEs of the same ICPC chapter. It would be more interesting, how much secondary RFEs were mentioned from other chapters especially the co-occurrence of RFE’s concerning the same patient would be of particular interest. This would indicate how difficult it can be to find a clear diagnosis with an adequate medical care.

Response: The figure in Table 2 for secondary RFE is only counted when they have a different code number. An analysis found more than 70% of secondary RFE had a difference chapter than primary RFE. That is now included in the text. Methods section, paragraph Data collection and variables: “Secondary RFE was only recorded if it had another code number or chapter number than the primary RFE”. Results section, paragraph Reason for encounter: “More than 70% of the secondary RFE belonged to another chapter than primary RFE”.

21. Page 6 lines 1-7 "Statistics" and 20-23 "Results" and Table 1: I wonder why you used Kendall’s tau-b in order to check significance for all listed variables. At least for non-ordinal scaled variables this does not make sense.
Response: Nearly all variables are not metric, and some not on ordinal scale. To compare the relationship we used Kendall’s tau-b even, Spearman’s rank correlation gives nearly the same results.

22. Page 8, lines 18-21, Figure 2: 897 contacts ended with a diagnosis of fever not 891. Figure 2 would be clearer, if you added the total contact numbers, for example beside, above or below the circles. The illustration is a little bit confusing.

Response: Indeed, 891 had fever as RFE. Figure 2 is now deleted.

23. In the discussion the results, which we could expect, are summarized, compared with existing studies and evaluated. But I miss an evaluation of the main objective of the study namely the satisfaction rate of the parents. What does it mean that we only have 7% dissatisfied parents? Is this point a statement that we do not need paediatricians in OOH?

Response: Based on our results we can say that the rate of dissatisfaction that we found matches with other studies on OOH primary care, for different age groups. In Denmark, the presence of a pediatrician at OOH primary care is not up for discussion, because of the gatekeeping system with GPs taking care of children in daytime and outside office hours, without direct access to a pediatrician. Yet, one could reflect upon the need for pediatricians, in line with our statement in the introduction. Children mostly presented with non-specific complaints (for example fever) and respiratory tract symptoms, which may indicate that the diagnostic scope is most relevant for primary care.

24. And what does it mean that 156 children got antibiotics without receiving a diagnosis of fever? (Remark: 146 children got the diagnosis pneumonia without having an acute otitis media (AOM). I think, they were treated with antibiotics, or? This is a blur in your results) Is this an argument for more diagnostic in OOH or do we have to withstand an uncertainty in OOH by the way exactly as we have to do as a GP in regular care every day?

Response: The prescription of antibiotics for AOM should be reduced, by different ways inclusive better diagnosis, both in daytime and outside office hours. These 146 children did not have fever or AOM, but a considerable part had a respiratory tract infection.
25. The conclusions are a summary of the results already cited at the beginning of the discussion! I miss a perspective sentence or an outlook for GPs working in OOHC having to treat children and having to dispute with potentially demanding parents.

Response: We added a paragraph on clinical implications and further research.

“The finding of 7.0% of parental dissatisfaction is in line of other studies, but it need to be further studies in attempt to reduce the dissatisfaction and maybe increase the quality of communication and care in OOH service. Another important finding that 70% of children with AOM got a prescription of antibiotic call for methods to decrease that rate.”

Yours Jørgen Lous