Reviewer’s report

Title: Exploration of knowledge and understanding in patients with primary adrenal insufficiency: A mixed methods study.

Version: 0 Date: 05 Mar 2017

Reviewer: Kathleen E. Bethin

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The authors used qualitative semi-structured interviews and review of participants' health records to determine if patients with PAI have sufficient knowledge and understanding of the condition including knowledge of how and when to adjust steroid replacement during acute illness or stressful event. They also assessed whether the patients had been educated about dealing with stressful events.

The authors have written a thorough background, which explains the importance and rationale of this study. However, the background should be expanded more in certain areas. The authors imply that psychological stress requires increased doses of steroids and provide one reference. However, this is not in agreement with consensus statements by various endocrine societies; Speiser, P, et al. Congenital Adrenal Hyperplasia Due to Steroid 21-Hydroxylase Deficiency: An Endocrine Society Clinical Practice Guideline JCEM (2010) 95 (9): 4133-4160.

Need to expand the description of the inclusion criteria. Biochemical evidence of PAI does not explain the criteria used to identify eligible subjects. What are your criteria as the authors for defining PAI? How were the subjects recruited? When they came in for clinic, by searching the database for patients diagnosed with PAI and cold calling them?

This manuscript involves only 10 patients who are all treated at the same NHS trust. Clarify the lead author's relationship to the subjects as this affects how the results are interpreted. Clarify who is the HCP- is the HCP a generalist, or is it an endocrinologist? Of the 10 patients how many different HCPs are involved? Is it the primary care provider or a specialist or both who are not documenting education of the patient in the chart?

Lines 109-112 does not belong in the methods as written. It also does not make sense as it is basically saying that data is recognized as an economical resource of data.

The sentence in lines 112-113 is unnecessary. The table legend for Table 2 will contain that information.

Table 3 is unnecessary. The authors should just summarize the steps that were used to analyze their data from Burnard's work.

The sentence contained in lines 131-132 does not make sense. The remainder of that paragraph belongs under the section entitled data collection.
Table 4 should be made smaller and should not include examples of text. Table 4 should just list the categories and subcategories. Examples of statements from patients should be reserved for the text in the results section. In the results section give more examples for each category/subcategory. Otherwise, it appears that you are making generalizations from one person's statement. Also, some of the quotes need more information to really understand.

The following reference should be incorporated into the manuscript: Forss, M, Batcheller, G, Skrtic, S and Johannsson, G. Current practice of glucocorticoid replacement therapy and patient-perceived health outcomes in adrenal insufficiency - a worldwide patient survey. BMC Endocrine Disorders 2012 12:8

References need to be fixed. I did not check all of them, however, the authors cite Hahner, et al as reference 17. Reference 17 is not by Hahner et al.

The manuscript needs to be re-reviewed for grammatical errors. Several of the mistakes make the sentences unintelligible.

The authors’ discussion is not supported by the data presented. The discussion starts out about the patients' knowledge and understanding is good. However, there is no data to support this. They state that the patient is more knowledgeable than the provider- yet there is again no data to support this.

The entire section on provision of patient education from lines 458-481 needs to be rewritten as it is very unclear.

The role of the nurse described in lines 533-540 is very much out of place. There is nothing prior to this section about the nurse in this manuscript and seems to have very little to do with the rest of the manuscript.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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