Reviewer's report

Title: Compliance with continuous positive airway pressure (CPAP) therapy for obstructive sleep apnea among privately paying patients- a cross sectional study.

Version: 3 Date: 4 April 2014

Reviewer: Taiji Furukawa

Reviewer's report:

I appreciated the authors’ replies to some of the questions and problems raised to the previous version of the paper. However, major problems of this study had not been solved.

Major points:

Comment on drop out and valid contacts has addressed in detail under first limitation of study in discussion section ((9th Paragraph in red fonts)

Due to the limitation of this study, authors should be very careful in stating general compliance level of CPAP in your country. You stated “Privately paying Pakistani patients with obstructive sleep apnea had 80% initial acceptance of CPAP therapy." However, the percentage was 80% of 56% (75/135). This meant that real compliance level in your clinic ranged 46+0/135 to 46+60/135. Some reasons that you could expect similar compliance levels in patients with and without valid contact were required. As mentioned in the previous comment “At least, authors should prove that the backgrounds of the patients are similar in those with and without valid contact.” Although you stated “As this is a single center study and most of the patients with and without valid contact are from the same background”, the assumption should be supported by some data of both group, i.e. way of sleep study, age, sex, BMI, AHI, ESS and so on.

Minor points:

Comment on methods to measure compliance has addressed in detail under second limitation of study in discussion section ((9th Paragraph in red fonts).

Description of questionnaire regarding compliance has added in Method section (2nd paragraph in red font).

We have now added the period of survey as suggested, in Method section (2nd paragraph in red font).

This will also clarify the definition of compliance.

The period of survey was stated clearly this time. And I realized that the duration after CPAP prescription at the time of survey ranged 3 to 8 years. As this study based on telephone-survey data, the accuracy of data depended on the patient memory. Readers would be doubtful about memory about CPAP prescription and usage level 8 years ago. The authors should prove that the compliant/non-compliant category was not affected by duration after OSA diagnosis.
In Table1 we don’t think further division of different factors like BMI in categories will make any difference in result with small sample size in each category.

I realized that my comment was not understood correctly. The way of your summarization (table 1) was interpreted as that independent variable was compliant/non-compliant and that dependent variables were BMI, ESS and so on (factors). It seemed that dependent variable was compliant/non-compliant (categorical) according to the context of the paper. If so, presenting the numbers of compliant/non-compliant patients by proper cut-off level of independent variables (such as total mean of BMI) would be a proper way of summarization for univariate analysis. Furthermore, Table 1 looked like the result of Mean/SD of compliant/non-compliant groups and t-test of each factor between the groups. However, the title of table 1 was “multiple logistic regression analysis”. If so, not regression coefficient and 95% CI should be presented for each factor instead of the current contents. The way of stepwise regression analysis (forward, backward and selection criteria) in methods also should be described in detail.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.