

Thanks for opportunity to review manuscript entitled “Incidence, risk factors, and management of Bell's palsy in the Qurayyat region of Saudi Arabia” for Peerj Journal. The author/authors examined the incidence of Bely's palsy. The strength of the manuscript includes examining variables of interest in a country where such studies are scarce. Overall, although the article is generally well written and deserves to be published in this journal some necessary and minor revisions must be made before the publication of the article. Because my main philosophy of reviewing a manuscript as reviewer and sometimes an editor to improve the manuscript and not punishing the authors, I provided very specific and detailed peer review of the manuscript to increase its quality and citation potential. I hope authors of the manuscript may benefit from my review. Necessary revisions reported section by section with the page and line number and when possible with suggestions.

## **Necessary Revisions**

### **General**

1. The writing of Bell's palsy is inconsistent along the manuscript. The correct writing is Bell's palsy. Author sometimes used correctly and sometimes write wrongly such as Bell's Palsy or bell's palsy. Authors must correct this mistake along the manuscript.
2. Along the manuscript reporting the statistics are wrong. Authors must correct this problem along the manuscript. I provided some examples as follows. Authors reported the frequencies as (n=12,7.0%). Correct reporting is ( $n = 12, 7.0\%$ ). Another example reporting chi square statistics. Authors reported like this  $X^2(6, N = 171)$  but correct form is  $\chi^2(6, N = 171) = 16.35, p = 0.012$ . Moreover, authors inconsistently reported statistics along the manuscript sometimes reported two decimal, sometimes reported three decimal to findings. Authors must consistently report consistently two decimal after the dot. Moreover, authors reporting standard is not consistent with Peerj.
3. The in-text citations of manuscript is not consistent with writing rules of Peerj. Authors must correct this along the manuscript.
4. Authors must edit the manuscript from a professional proofreading company after possible revisions. It is very difficult to understand most sentence, and a lot of writing mistakes exist. A lot of sentence used without citations when necessary.
5. Keywords are completely missing in the manuscript and must be added.

### **Abstract**

6. Abstract, Page 6 Line 24-26: Please revise following sentence for clarity. It is very difficult to understand. ‘ ‘A 28-item questionnaire was developed by a team of experts, pre-tested, and piloted among bell's palsy patients before sending it to the eligible participants.’’ Because I am not able to understand this sentence, I have no revision suggestion.
7. Abstract, Page 6, Method Section: Authors must add their used statistical analyses to this section.
8. Abstract, Page 6, Line 29-30: Please revise following sentence ‘ ‘Females (n=141, 86%) were predominantly affected than males.’’ One revision may be that ‘ ‘Bell’s palsy was more commonly occurred in females than males (  $n = 141, 86\%$ ). Moreover, authors must a sentence to indicate their reached Bell’s palsy patients. When individuals read without this information, they think reported percentages are wrong. Thus, before female sentences author must add this information.
9. Abstract, Page 6, Line 29-30: Please revise following sentence ‘ ‘The most affected age group was 21-30 years (n=76,44.4%).’’ One revision may be that ‘ ‘Bell’s palsy illness most commonly experienced among 21-30 years old individuals.’’
10. Abstract, Page 6, Line 30-31: Please revise following sentence, it is unclear and difficult to understand. ‘ ‘There were 157 (89.5%) cases affected who reported Bell's palsy for the first time.’’ I think authors want to mean Bell’s palsy illness occurrence number. However, I am not sure. If so, one revision may be that ‘ ‘There were 157 (89.5%) cases who reported Bell’s palsy for the first time.’’
11. Abstract, Page 6, Line 31-32: Please revise following sentence ‘ ‘Majority of the participants reported right-sided facial paralysis (n=96, 56.1%) and only (n=12,7.0%) had bilateral facial paralysis.’’ One revision may be that ‘ ‘The majority of the participants experienced right-sided facial paralysis ( $n = 96, 56.1\%$ )’’. No need second part.
12. Abstract, Page 6, Line 33: ‘ ‘Chi-square analysis’’ must be ‘ ‘The chi-square analyses’’
13. Abstract, Page 6, Line 33: ‘ ‘relation’’ must be relationship or association.
14. Abstract, Page 6, Line 35: ‘ ‘The post hoc analysis revealed that’’ must be ‘ ‘The post hoc analyses revealed that’’
15. Abstract, Page 6, Line 35: ‘ ‘20-31-year’’ must be corrected as ‘ ‘21-30 year’’.
16. Abstract, Page 6, Line 40: Please remove following ‘ ‘vitamins and neuro-vitality drugs (’’
17. Abstract, Page 7, Line 41: ‘ ‘The most preferred combination therapy’’ must be corrected as ‘ ‘The most preferred combined therapy’’

17. Abstract, Page 7, Line 46: Please revise following sentence ‘ ‘A peak incidence was seen in the age group. 21-30 years.’’ One revision may be that ‘ ‘ Bell’s palsy most commonly occurred in the age group 21-30 years.’’

#### Introduction

18. Introduction, Page 7, Line 49: The citation/citations need for following sentence ‘ ‘ Bell’s palsy is a common lower motor nerve paralysis of facial nerve of unknown origin.’’

19. Introduction, Page 7, Line 50-51: The citation/citations need for following sentence ‘ ‘The patient experiences sudden unilateral flaccid paralysis of muscles of facial expression rarely bilateral.’’

20. Introduction, Page 7, Line 51-52: The citation/citations need for following sentence ‘ ‘The patient is unable to perform facial movements towards the affected side and facial asymmetry becomes clear with attempted facial movements’’

21. Introduction, Page 7, Line 53-54: The citation/citations need for following sentence ‘ ‘The annual incidence is 15-30 per 100,000 populations as per the data from National Health Survey, UK’’

22. Introduction, Page 7, Line 54-55: The citation/citations need for following sentence ‘ ‘Being a relatively rare condition, the annual incidence of Bell's palsy is reported to be 11-40 cases per 100,000 populations.’’

23. Introduction, Page 7, Line 61: Please revise the following sentence ‘ ‘ The cause of Bell’s palsy is unknown’’ as ‘ ‘The exact cause of Bell’s palsy is unknown’’

24. Introduction, Page 7, Line 61: Please revise the following sentence ‘ ‘ Introduction, Page 6, Line 61: Please revise the following sentence ‘ ‘ many probable’’ as ‘ ‘many possible’’

25. Introduction, Page 7, Line 69-70: Please revise the following sentence ‘ ‘Therefore, a study is needed to explore the impact of increased prevalence of risk factors and consanguineous marriage on the prevalence and incidence of Bell’s palsy in Saudi Arabia.’’ In the sentence, three times prevalence used. One revision may be that ‘ ‘Therefore, a study is needed to explore the possible impact of increased risk factors and consanguineous marriage on the incidence of Bell’s palsy in Saudi population.’’

26. Introduction, Page 8, Line 80-83: Please revise the following sentence ‘ ‘Therefore, the study aims to determine the incidence, association of risk factors, and preferred treatment options following Bell’s palsy in the Saudi population.’’ One revision may be that ‘ ‘Therefore, the aim of this study is to determine the incidence, possible risk factors, and preferred treatment options following Bell’s palsy in the Saudi population.’’.

#### Method

27. Method section, General: Author must rearrange Method section using the subtitles Research Design, Participant, Data Collection Tools, Procedure, and Statistical Analyses. In this form it looks very messy.

28. Method, Page 8, Line 116-117: As an expert in multivariate analyst, I can confidently say that the statement ‘ ‘The internal consistency of the 28 item questionnaire was 0.716 calculated by Cronbach's alpha.’’ Was wrong and must remove from the manuscript.

29. Method, Page 9, Line 134-135: As an expert in multivariate analyst, I can confidently say that the statement ‘ ‘The questionnaire was analyzed for internal consistency by Cronbach alpha and Inter-Class correlation coefficient.’’ was wrong and must remove from the manuscript.

30. Method, Statistical Analyses section: Authors must add used significance level in this section. Moreover, are the authors examined the assumptions of chi square analyses? I observed a lot of class below 5 participants and strong concerns about the assumption violations. If authors examined and satisfied the assumption of these analyses, they must add a sentence to statistical analyses section to indicate this. If assumptions are violated authors must use in these analyses Fisher's exact test.

## **Results**

31. Results, Page 9, Line 158-159: Please revise the following sentence ‘ ‘The study consists of a majority of female participants (n=147, 86%) out of 171 total sample sizes.’’, One revision may be that ‘ ‘Among 171 Bell's palsy patients, the majority of participants were female (n = 147, 86%).’’

## **Discussion**

32. Discussion, Page 10 Line 162-163: Please revise the following sentence ‘ ‘The study aimed to identify the risk factors and preferred treatment after Bell's palsy among participants residing in the Qurayyat region of Saudi Arabia.’’ The correct version is ‘ ‘This study aimed to examine incidence of Bell's palsy and identify the risk factors and preferred treatment after this illness among participants residing in the Qurayyat region of Saudi Arabia.’’

33. Discussion, General: the practical implications of study findings are completely missing in the manuscript. Authors must add a section named Practical implications and must discuss practical implications of their study findings.

34. Discussion, Page 11 Line 225: Please revise following sentence ‘ ‘A peak incidence was seen in the age group. 21-30 years.’’ One revision may be that ‘ ‘ Bell's palsy most commonly occurred in the age group 21-30 years.’’

## **Tables and Figures.**

35. In Table 1 age variable ‘ ‘60 above’’ must be ‘ ‘61 or above’’

36. In Table 1, Recurrence variable ‘ ‘Frist time’’ must be “first time”

37. In Table 1, following changes must be made and analyses must be repeated and reported after this changes combine 61 or above group with 51-60 and rename this group as 51 or above. Moreover, Recurrence variable must be two group first time second or more For Treatment following Bell's Palsy Vitamins and nerve supplements, No treatment, Surgery must remove from analyses or combined as Other.

38. Table 2 is very complicated author must simplify this table.

39. Risk factors in Figure 2 for this study or compilation from other study. If compiled from other studies citation need for this.