

Assessment of Perceived Stress, Social Inhibition, And Negative Affectivity in Elderly Patients with Peripheral Vertigo: A Case-Control Study

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Abstract

Background: Vertigo is a common problem in the elderly age group. One biggest issues with vertigo are that it is difficult to diagnose and identify.

Objective: The present study was aimed to assess the perceived stress, social inhibition, and negative affectivity in elderly patients with peripheral vertigo.

Materials and methods: A total of 30 elderly participants with peripheral vertigo were part of the study after obtaining written informed consent. 30 age and gender-matching controls were also recruited. Both male and female participants were recruited in the study. Assessment of perceived stress was done using a standard questionnaire. DS14 questionnaire was used to assess the negative affectivity and social inhibition scores in the participants.

Results: There were significantly higher perceived stress scores in the cases when compared with the controls. There were significantly higher scores of social inhibition in the cases when compared with the controls. There were significantly higher scores of negative affectivity in the cases when compared with the controls.

Conclusion: The study results support that there are significantly higher scores of stress, negative affectivity, and social inhibition in the patients with peripheral vertigo when compared with the controls. Further, detailed studies are recommended in this area.

Keywords; Stress, Psychological parameters, Vertigo

INTRODUCTION:

Vertigo is a common problem in the elderly age group. One biggest issue with vertigo is that it is difficult to diagnose and identify. That is the reason when the patient gets the attack, he feels it is so difficult to manage.^[1] Interestingly, it was reported that vertigo symptoms were aggravated after the earthquake in Georgia.^[2] It is known that psychological distress is most common in patients with vertigo.^[3] There are links between the vestibular system and the areas of the brain that process emotions. Symptoms of vertigo showed a positive correlation with the excitability of the vestibular system.^[3] Higher prevalence of vertigo was observed in the patients with vertigo.^[4] Hence, it is essential to observe and assess the psychological symptoms along with the diagnostic procedure of vertigo. Also, the treatment protocol includes the management of psychological parameters along with vertigo. This will improve the treatment outcome.^[5] The studies related to the assessment of psychological parameters are sparse. Hence, the present study was undertaken to assess the perceived stress, social inhibition, and negative affectivity in elderly patients with peripheral vertigo.

MATERIALS AND METHODS:

Study design: Case-control study.

Study site: Little Flower Medical Research Centre, Kerala, India.

Study population: A total of 30 elderly participants with peripheral vertigo were part of the study after obtaining written informed consent. 30 age and gender-matching controls were also recruited. Both male and female participants were

recruited in the study. Willing participants were recruited for the study. Patients with any severe complications were excluded from the study.

Assessment of perceived stress: It was assessed using a standard questionnaire in the literature. It is a self-administered questionnaire. ^[6]

Assessment of negative affectivity and social inhibition: DS14 questionnaire was used to assess the negative affectivity and social inhibition scores in the participants. ^[7]

Ethical considerations: The present study was approved by the institutional human ethical committee. (No EC/12-33).

Statistical analysis: Data was analyzed using SPSS 20.0 version. Student t-test was applied to observe the significance of the difference between the groups. A probability value of less than 0.05 was considered significant.

Results: Results were presented in Tables no 1 and 2. Table 1 presents the demographic data of the participants. Table 2 presents the perceived stress, social inhibition, and negative affectivity of the participants. There were significantly higher perceived stress scores in the cases when compared with the controls. There were significantly higher scores of social inhibition in the cases when compared with the controls. There were significantly higher scores of negative affectivity in the cases when compared with the controls.

Table 1: Demographic data of the participants

Variable	Cases (n=30)	Controls (n=30)	P value
Age	54±0.37	52±0.73	0.0173
Height	155±5.84	160±9.49	0.6554
Weight	58±4.38	62±5.38	0.5707

Data were presented as mean and SEM.

Table 2: Perceived stress, social inhibition, and negative affectivity of the participants

Variable	Cases (n=30)	Controls (n=30)	P value
Perceived stress	24±1.46	16±0.73	0.0001***
Social inhibition	22±1.10	14±0.73	0.0001***
Negative affectivity	26±0.37	18±1.46	0.0001***

Data were presented as mean and SEM. ***P<0.001 is significant.

DISCUSSION:

The present study was aimed to assess the perceived stress, social inhibition, and negative affectivity in elderly patients with peripheral vertigo. Increased levels of oxidative stress and dysregulation of autonomic functions were reported by earlier studies.^[8] Interestingly it was reported that vestibular system functioning is related to excessive and less anxiety as well.^[9] Due to the abnormal oxidative stress, there will be an alteration in the metabolism of lipids.^[10] A healthy vestibular system with optimal stimulation causes the release of stress. That means when there is vestibular dysfunction, the level of stress will be higher. However, studies related to this area are sparse. There were significantly higher perceived stress scores in the cases when compared with the controls. There were significantly higher scores of social inhibition in the cases when compared with the controls. There were significantly higher scores of negative affectivity in the cases when compared with the controls. Interestingly, one study reported that non-cardiovascular patients also possess an excess of the negative affectivity and social inhibition that is type D personality.^[11] The study results are in support the earlier studies as there were excessive amounts of negative affectivity and social inhibition observed in the participants. The study has certain limitations as the sample size of the study was less and conducted at one centre.

CONCLUSION:

The study results support that there are significantly higher scores of stress, negative affectivity, and social inhibition in the patients with peripheral vertigo when compared with the controls. Further, detailed studies are recommended in this area.

Conflicts of interest: None declared

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