



ABSTRACT

The use of alternative medicine becomes popular once more in the Philippines and worldwide because nowadays, alternative medicines like herbal medicine are used to treat certain ailments and for disease prevention. *Stevia rebaudiana* which is a herbal food supplement contains high level of sweetening compounds known as steviol glycosides and it is used by people especially diabetic people as an alternative sugar. The study determined the neuro-physiological effect of powdered *S. rebaudiana* leaves on the nervous system of ICR mice. Oral administration of powdered *S. rebaudiana* was done using three doses (0.3g, 0.6g and 0.9g) with three kinds of frequency (once a day, twice a day and thrice a day). After the treatment, stimulation test and hot plate method was conducted to gather scored data and recorded time, respectively. Results in the stimulation test show that powdered Stevia depresses the CNS and after statistical analysis was done, all the treatment groups show no significant differences which indicate that they have the same depressant effect. Moreover, in the hot plate method, the result shows analgesic effect in PNS and after statistical analysis was done, all the doses have significant differences while among the frequency, thrice a day administration exhibited the greatest effects. Furthermore, frequent sleeping and decrease motor activity were also observed to the treated mice and therefore, powdered *S. rebaudiana* was proved to depress the CNS and to produce analgesic effect to the PNS.