EWS: Express without Stress

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This study aimed to examine the effectiveness of Express without Stress device (EWS) on treating stuttering disorder. The study methodology contained three phases. First, a survey was designed and conducted to discover the stuttering effect on the patient. Second, the EWS device was designed to enhance the condition of stutterers by using the repetition method accompanied with vibration sensors according to a specific pulse rate. The device measures the pulse rate to check if it is normal. Afterwards, the stutterer types the word or the sentence and hears it through the headset and then the patient practices pronouncing it without stressing by repeating the word or the sentence slowly and accurately. However, when the pulse rate is high, vibration sensors would work massaging the facial muscles. Third, a sample of 50 patients aged 16-20 years old were randomly chosen for clinical experiments under supervision. The results showed more frequency for successful 98% of cases. Moreover, there was statistically significant moderate relationship between Pulse Rate and the severity of stuttering, which was (r = 0.331). Furthermore, there was a statistically significant high relationship between Pulse Rate before using EWS (r = 0.75) and Pulse Rate after using EWS and activating the vibration sensors (r = 0.52), and the time needed to pronounce the word/sentence was decreased. Finally, there was statistically significant relationship between Pulse Rate and the Number of Repetition, which was ranged between (0.25-0.45). As a conclusion, the EWS device was a high effective method to reduce the level of stuttering.

Awards Won:
Third Award of $1,000