

CHAPTER 6.0

6.0 DATA EXTRACTION AND ANALYSIS

6.1 DATA EXTRACTION

6.1.1 AUTONOMIC AND RESPIRATORY VARIABLES

The heart rate in beats per minute (bpm) was obtained by continuously counting QRS complexes in successive 60 s periods. The breath rate (in cycles per minute) was calculated by counting the breath cycles in 60 s epochs, continuously. Heart rate and variability spectrum (HRV) was recorded ten minutes before the intervention, ten minutes during recording and ten minutes following the intervention. Following the European Guidelines of the Task Force of the European Society of Cardiology, the following components of time domain HRV were analyzed viz., the number of pairs of Normal to Normal RR intervals differing by more than 50 ms (NN50), NN50 divided by total number of all NN intervals (pNN50), and total index of NN intervals (TINN). In addition, the HRV power spectrum was obtained using Fast Fourier Transform analysis (FFT). The energy in the HRV series in the following specific frequency bands was studied viz., the very low-frequency band (0.0–0.05 Hz), the low-frequency band (0.5–0.15 Hz), and high-frequency band (0.15–0.50 Hz). The low frequency and high-frequency band values were expressed as normalized units (Task Force of the European Society of Cardiology 1996). Hence the HRV data were analyzed to obtain both time domain and frequency domain measures. BP signals were converted from analog to digital at 100 Hz (Beat Scope 1.1, TNO-body mass index (BMI) for off-line analysis.

6.1.2 COGNITIVE VARIABLES

6.1.2.1 SIX LETTER CANCELLATION TEST (SLCT)

The total number of cancellations was scored and the net scores was calculated by deducting wrong cancellation from the total cancellations attempted (Agarwal et al., 2002).

6.1.3 WECHSLER MEMORY SCALE (WMS)

There were six pairs for the easy task and four pairs for the hard task. Each correct answer was scored as '1' and difficult or hard answer as '2'. This was based on the conventional scoring for Wechsler memory scale. Continuously Score '1' for the correct repetition of 'DF' and 'DB' (Luna-Lario, Pena and Ojeda, 2017).

6.1.4 MINDFULNESS ATTENTION AND AWARENESS SCALE (MAAS)

Reverse scoring was done for all the items and the average scores were reported. Higher scores indicate higher mindfulness (Brown and Ryan, 2003).

6.5 DATA ANALYSIS

6.5.1 AUTONOMIC AND RESPIRATORY VARIABLES

Data were analyzed using Statistical Package for Social Sciences (SPSS) 22.0 version. Since the data were found to be normally distributed, the data were analyzed using parametric tests. For this trial, Analysis of Variance (ANOVA) was used to compare within and between the four groups.

6.5.2 COGNITIVE VARIABLES

Data were analyzed using Statistical Package for Social Sciences (SPSS) 18.0 version. Since the data were not normally distributed, the data were analyzed using non-parametric tests. For this trial, repeated measures of ANOVA equivalent non-parametric test i.e., Friedman Test was used for overall comparison between sessions and Wilcoxon Signed Rank test was used for multiple comparison (t-test).