Respiratory muscle strength effect on linear and nonlinear heart rate variability...

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The paper " Respiratory Muscle Strength Effect on Linear and Nonlinear Heart Rate Variability Parameters in COPD Patients" is a wonderful example of an article review on health science and medicine.

The journal's focal point is to determine the Heart Rate Variability indices and the Heart Rate of COPD patients during IC and VM. This primary objective is achieved by a rationale properly explained in the introductory part. The researcher begins by explaining the respiratory complexities that arise from the COPD condition. It is commendable that previous researches relating COPD with increased mortality and poor patient prognosis are provided as the foundation for the research question. To support the research further, the rationale for choosing IC and VM is made clear from the angle that these are the commonly used autonomic tests. Other than the rationale of the study being sound, there is significant relevance of the question under research to the medical field. This is drawn from the concept of poor patient prognosis and the high mortality rates attributed to complex COPD related conditions. The research methodology employed is fairly replicable in other researches to uncover more facts and details on the question. Having a random cross-section choice of participants guaranteed the collection of reliable data. The level of biases that could arise was mitigated well from the preparation procedures to the type of equipment that were deployed. In addition to these, the researcher puts out the tiny details such as VM was performed by patients in sitting position and the intervals at which signals are recorded can be followed through. The statistical analysis processes took the aid of sophisticated soft wares (Goulart et al., 2016). These have been tested and approved on levels of

accuracy and precision such that the results are overly reliable. However, it could be difficult to compare the manually generated results with these which would provide insights to information worth considering. The dependent variables of the study (Heart Rate Variability and Heart Rate) were assessed against several independent variables. The inclusion of the long list of independent variables does add weight to the element of COPD patients and physicians facing different complications yet it portrays the research as being wide. For instance, under the BMI variable, the researcher split the factors further into the BMI Classifications. This minute details have a twofold effect on this kind of research. At the end of the data and the results, meaningful correlations are drawn in line with the study question. The table represents the written content but the easier interpretation is arrived by reading and then confirming with the data on the table. One notable observation in the use of graphical presentation of results is the graphs representing the HR during rest and HR during rest. These are almost similar, the researcher could have at least sought other tools that could bring out a difference between them (Goulart et al., 2016). The research hypothesis outlines at the introduction are on reflection at the end of it all. The findings as discussed and numbered relate the two key areas, that is COPD response to IC and VM and two, Heart Rates of the patients while taking the procedures. Through the findings, the correlation between the conditions, other factors, and the two measurements can be established logically and systematically. The research limitations are clearly pointed out, the major one being a poor representation of the sample with a justifying explanation. Other researchers in the same field can borrow from the

relevance of it. The takeaways are quite a number; clinical management of COPD patients and the interaction of different reflexes in the respiratory system.