



Seasonal variation in physical activity in patients with heart failure



Dear Editor,

We read with great interest a recent published paper by Klompstra et al.¹ entitled “Seasonal variation in physical activity in patients with heart failure”. In this study the authors investigated physical activity, motivation, and self-efficacy to exercise and heart failure symptoms severity of one sample patients with heart failure in the summer and the winter. Indeed, they assessed some numerical variables in on sample of patients in two different time-points. They used one-way analysis of variance (ANOVA) for comparison of variables between two time-points of measurement.² One-way ANOVA is used to compare continuous numerical variables between more than two independent groups. The authors compared their variables between two time-points in one sample of patients; therefore, their comparisons are completely dependent. If in this study the authors investigated their variable between more than two time-points, they must use Repeated Measures ANOVA or Friedman test. Since they assessed their variables only in two time-point, they must use paired *t*-test or Wilcoxon to compare numerical variables between summer and winter.

Taken together, we believe that this valuables study needs appropriate statistical analysis to be used as a citable evidence.

Data statement

Our manuscript is a letter to the editor and there is no data.

Supplementary materials

Supplementary material associated with this article can be found in the online version at [doi:10.1016/j.hrtlng.2019.06.004](https://doi.org/10.1016/j.hrtlng.2019.06.004).

References

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2. Gaddis ML. Statistical methodology: IV. Analysis of variance, analysis of co variance, and multivariate analysis of variance. *Acad Emerg Med*. 1998;5:258–265.

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