

## The relationship between perceived exertion and heart rate during yoga

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### ABSTRACT

Yoga has been around for centuries and has steadily increased in popularity in the West through the years, but this mind-body-spirit practice has had very little research conducted perceived intensities. **PURPOSE:** to assess heart rate (HR) and rating of perceived exertion (RPE) of those participating in yoga classes. It is hypothesized that as HR increases, there will also be an increase in RPE. It is also hypothesized that those taking yoga classes have goals of flexibility and stress reduction rather than weight reduction and strength. **METHODS:** Thirty-one participants (age =  $30.8 \pm 12.0$  yrs, ht =  $163.0 \pm 6.3$  cm, wt =  $74.4 \pm 17.7$  kg, BMI =  $27.9 \pm 6.3$ ) were fitted with a Polar HR monitor and instructed on how to use the Borg's 6-20 RPE scale. At the start of a 60-minute session HR was recorded. At minutes 15, 30, 45, and 60 HR and RPE were recorded. At these time-points, the investigator simply looked at the receiver and participants pointed to a number on the RPE scale. Immediately following the class, participants completed a survey that included questions about yoga and demographic data. A Pearson's product moment correlation was used to determine the relationship between HR and RPE, with significance set at .05. Surveys were tallied to determine participant's goals. **RESULTS:** Although there was a significant correlation between HR and RPE at minute 45 ( $r(30) = .44, p = .014$ ), only 20% of the variance in the increase in RPE can be attributed to the increase in HR. This trend also occurred at minute 60 ( $r(30) = .38, p = .036$ ), but with only 14% of the change in RPE due to the change in HR. Correlations between HR and RPE at minutes 15 and 30 were not significant ( $p > .05$ ). While half of the participants rated flexibility as their number one reason for participating in yoga, 16% of participants rated "aerobic" as their number one reason for participating. Ninety percent of participants felt more relaxed at the end of a yoga class. **CONCLUSIONS:** This study suggests that it is best to use caution using the Borg's 6-20 scale to measure exercise intensity during yoga. There is evidence to show that there may be a misconception in using yoga for aerobic benefits. There is also evidence that shows many people believe flexibility and stress reduction are key benefits of yoga.

