In both individual and group exercise settings, it is common for people to make references to others and note how they are performing in relation to themselves, a process known as social comparison (Festinger, 1954). These tendencies have extended into the realm of physical activity with the help of activity trackers. Researchers exploring the display of exercise data have reported that those exercising with a partner/group tend to persist longer in exercise than those exercising without a partner/group (Walmink, Wilde, & Mueller, 2014). The current study aimed to experimentally explore the effect of displayed exercise data on individual exerciser’s performance (mean HR, calories burned, and distance cycled) during group exercise. Peloton bike riders (N=26) completed three exercise conditions: heart rate (HR) monitor with group data display, HR monitor with individual data display, and HR with no display condition and participants’ exercise performance was assessed for each condition. Repeated measures ANOVA and linear regression analyses were used to explore differences in exercise performance and the relationships between exercise performance and goal orientation (EO) and social comparison orientation (SC). Analyses revealed a significant effect of condition on HR, calories burned, and distance cycled, where the group data condition produced the highest exercise
performance. There was a strong positive correlation between SC and calories burned and between calories burned and distance, a moderate to strong positive correlation between SC and distance. Additionally, a moderate to strong negative correlation was found between EO and HR, and between task and ego orientations. EO was a significant predictor of HR, accounting for 19% of the variance. SC orientation was a significant predictor of distance (20% of the variance) and calories burned (27% of the variance). These results provide evidence for the impact social comparison, ego orientation, and visually displayed data can have on exercise performance.