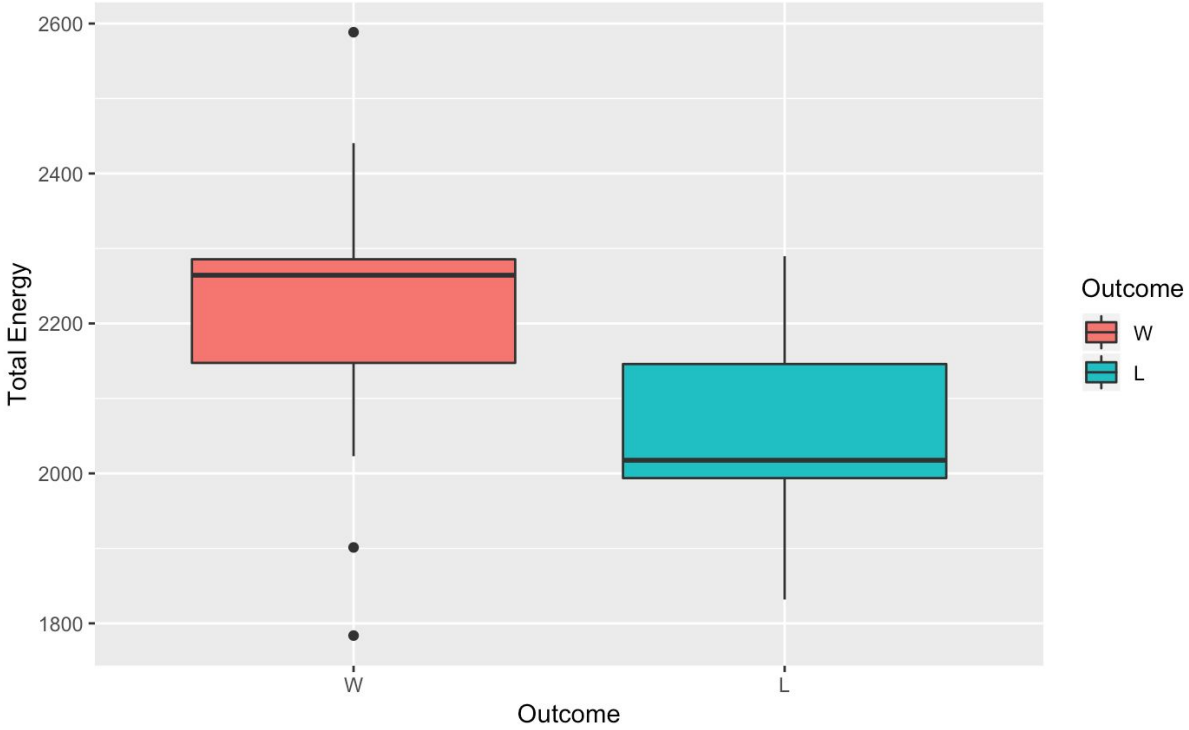
Examine Fatigue During a Game

How game results affect fatigue, How self-reports of fatigue are related

Beta Theta Data

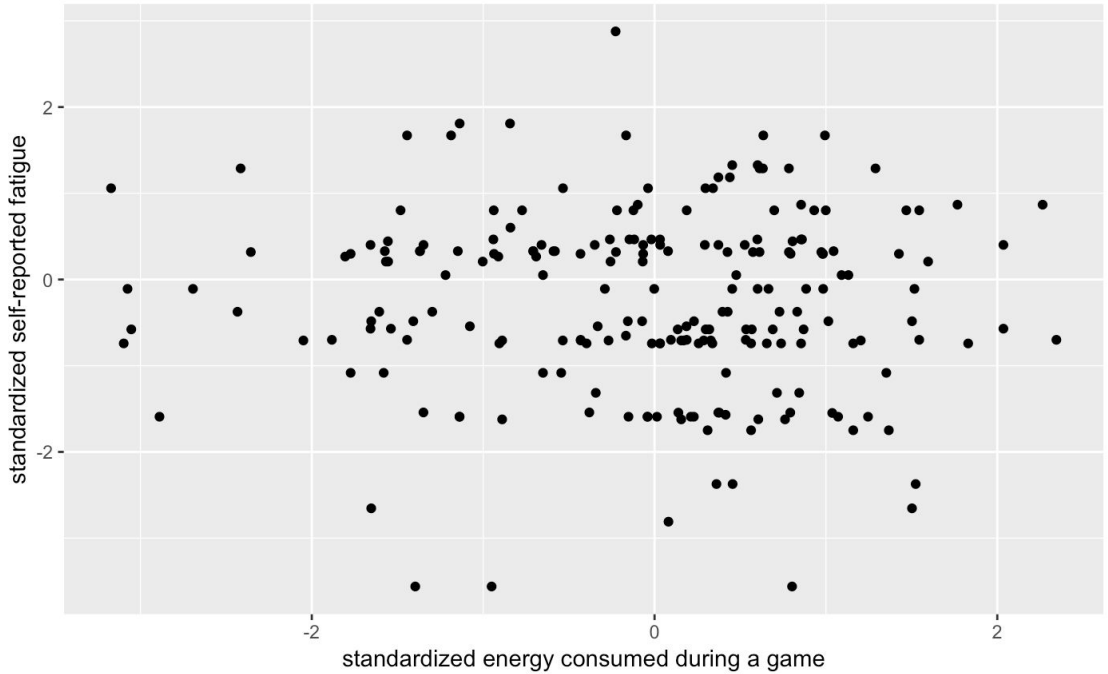
The team consume more energy in games won



Energy consumed as a proxy for fatigue. Calculated by multiplying average acceleration load and time

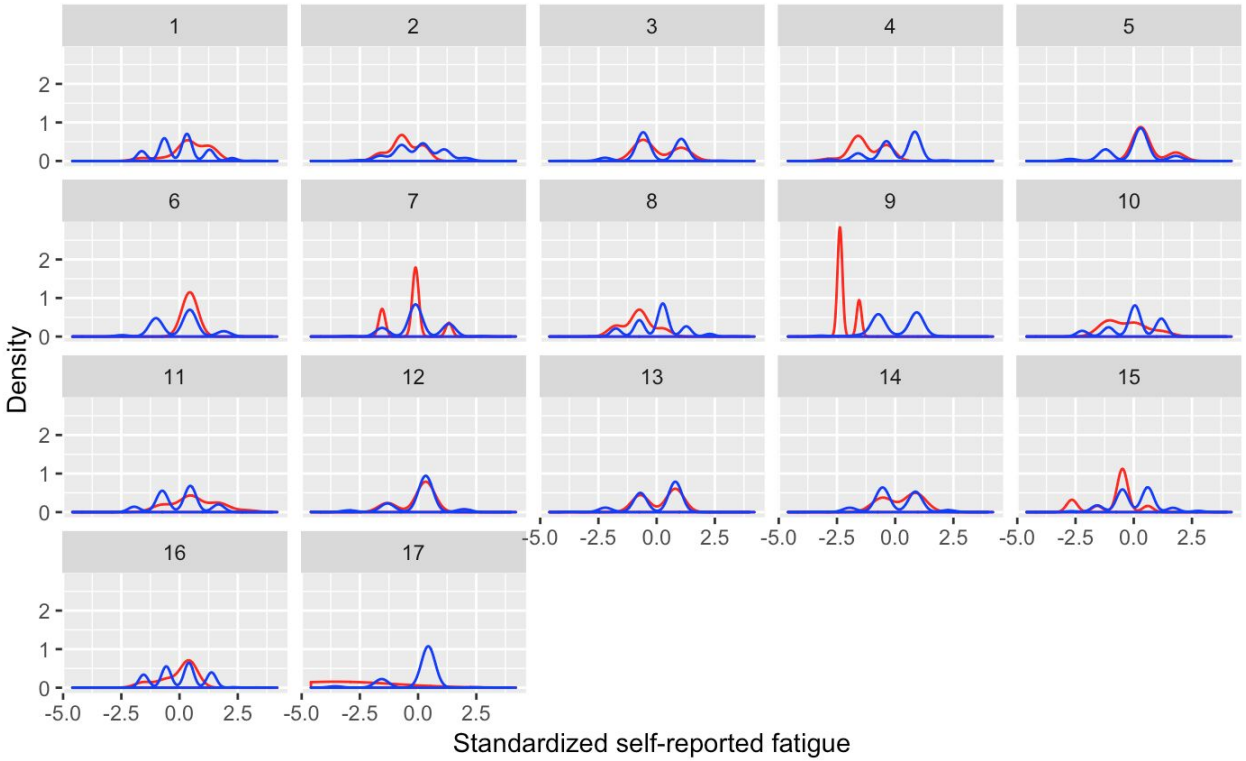
p-value from a two-sample test: 0.0111
Difference is significant at 5% level

Compare self-reported fatigue and energy consumed



No obvious relationship from scatterplot.

Comparison of fatigue by player



Density distribution of standardized self-reported fatigue.

Red: Next morning after a game

Blue: All other days

Conclusion

- Outcome of the game matters when examining fatigue during a game.
- Self-reported fatigue level is subjective, and thus difficult to determine its effect on performance.
- To more effectively control for fatigue and maximize performance, we can analyze individual players and compare self-reported fatigue levels on game-day to other days and adjust accordingly.
- Caution against the data not being reflective of players' actual condition due to habitual responses rather than post-examination.