DATA HAKA

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Interesting Quirks

- No correlation between fatigue/soreness and average speed per game for each player

- No correlation between session load/daily load and fatigue/soreness

- Player 6 always reported fatigue as 4 on game days

- The data is missing for daily load, acute load and chronic load when the session type is 'Combat'

- Most players reported each session as the best they could do, similarly they gave scores near highest value for Objective Rating and Focus Rating

How players reported fatigue?

Fatigue among players
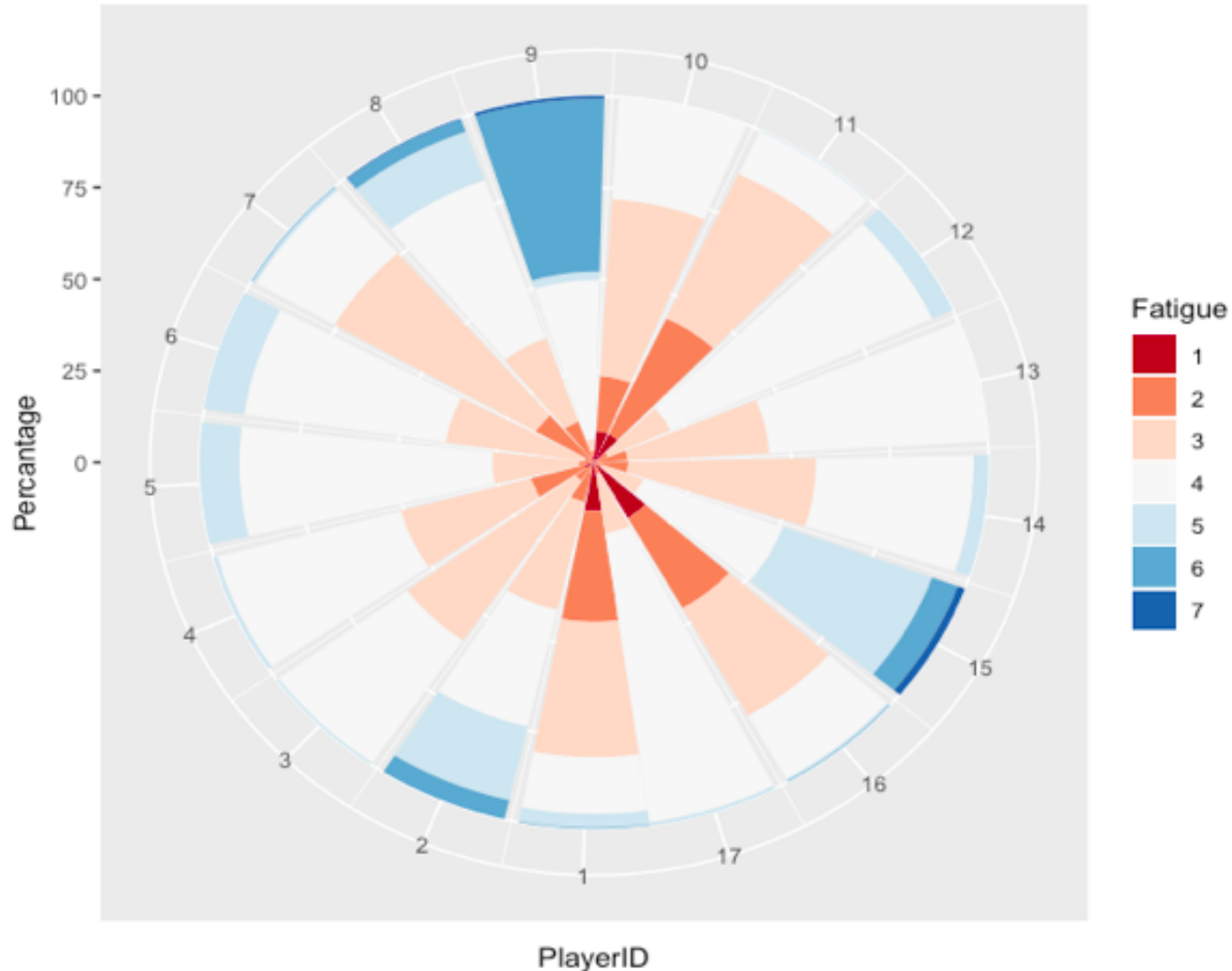
Methodology:
- Percentage of a particular fatigue value per player stacked

Key Takeaway:
- The fatigue values reported for each player are not consistent across players

- We observe similar patterns in other subjective measures

How to improve the Monitoring Score?

We can see each athlete have different preference in self-report.

We use Entropy method to determine weights of evaluating indicators for every player to improve the Monitoring Score.

	Fatigue	Soreness	Desire	Irritability	SleepQuality
1	0.199455	0.192519	0.223333	0.183643	0.201049899
2	0.209364	0.230698	0.172197	0.151262	0.236478923
3	0.248652	0.263625	0.293339	0.05722	0.137163439
4	0.184236	0.20154	0.151605	0.159801	0.302817819
5	0.189656	0.237478	0.230436	0.184317	0.158113865
6	0.215707	0.209224	0.18117	0.162367	0.231531713
7	0.22575	0.233706	0.142343	0.139433	0.25876704
8	0.207132	0.191913	0.237206	0.148556	0.215193168

Fig. Weight of each variables to player's Monitoring Score
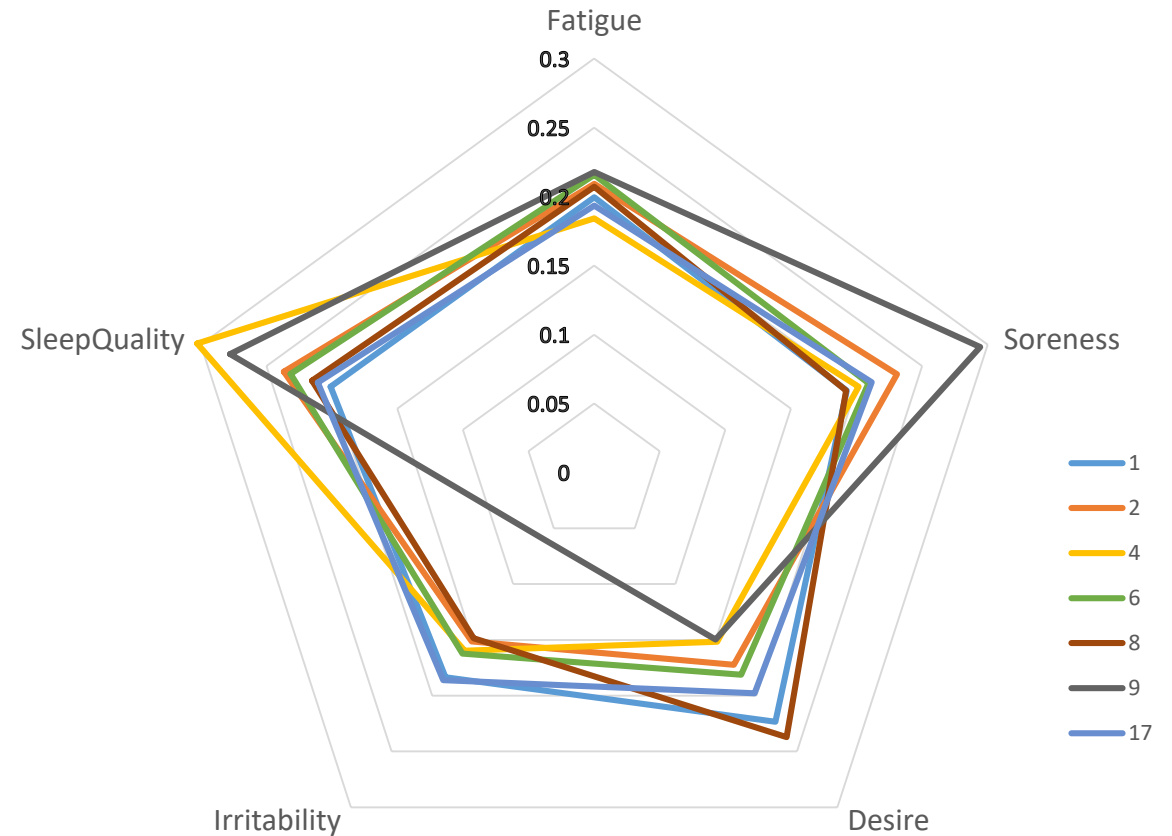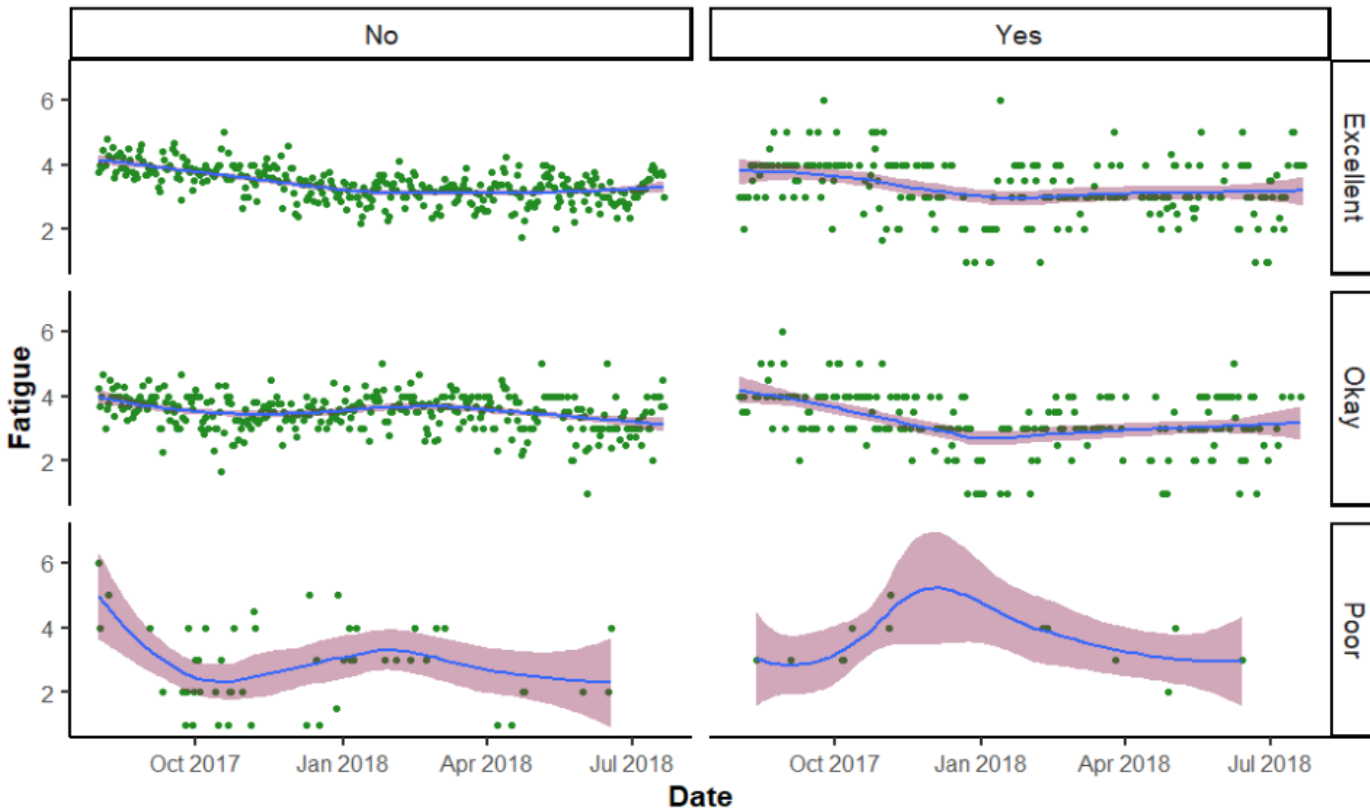

Fig. Radar chart of Weight of each variables

Impact on Time, Nutrition, and Pain with Fatigue
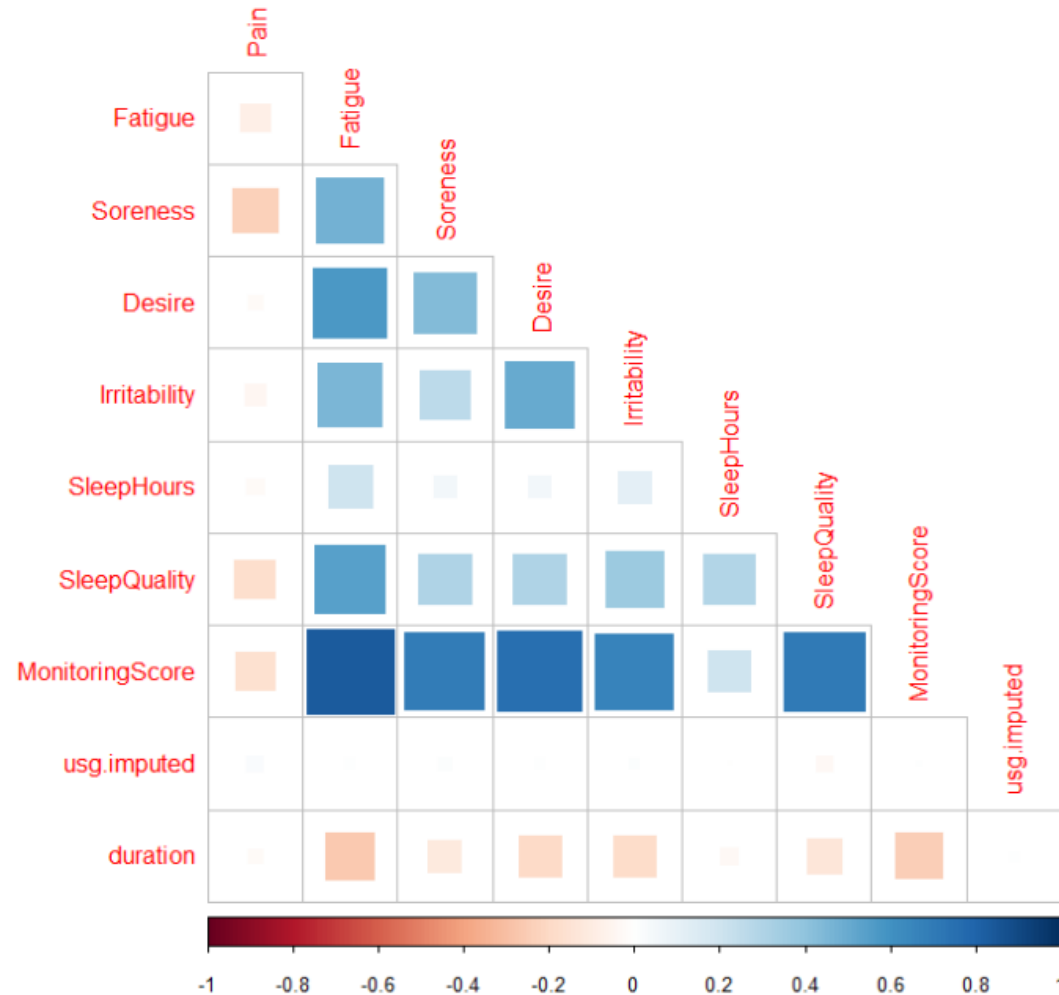

Fatigue Trends Over Time For Nutirion with Pain

Methodology:
- Measure the daily average pain per player
- Missing values for nutrition was imputed by stratified random sampling of available reports
- Fatigue excludes missing values

Key Takeaway:
- The fatigue for player that are in "excellent" and "Ok" health decreases over time

Correlation of Wellness Variables

Consideration:

- Values for reported by players are subjective and there is no standard definition for the terms reported
- Verifying accuracy of the data is a challenge due to the inability to audit the players self reported information
- Duration is measure of how long the player has been playing (number of days)

Key Takeaway:

- Fatigue, Soreness and Desire are heavily correlated
- Fatigue is inversely correlated with Duration
- Fatigue is correlated with Sleep quality

Morale as measure?

Scatter plot of points scored vs points against Canada
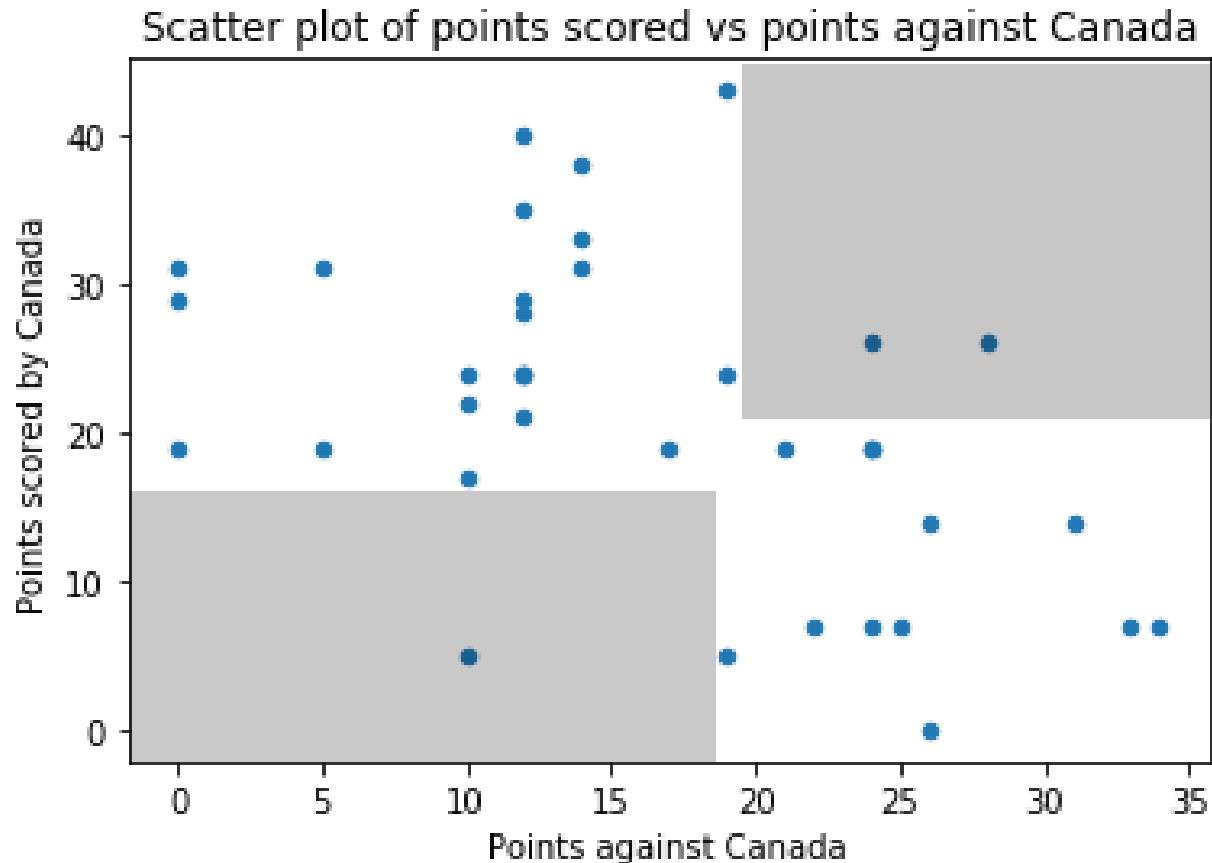
Key Takeaway:

- There are very few matches in which both the teams either scored high or low
- Morale as a subjective measure might improve analysis of data
- Emphasis on Morale in low scoring games could help Canada win more games

Thank you