

Exploring Suicide Rates By Country, Beyond Simple Socio-Economic Statistics

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Overview

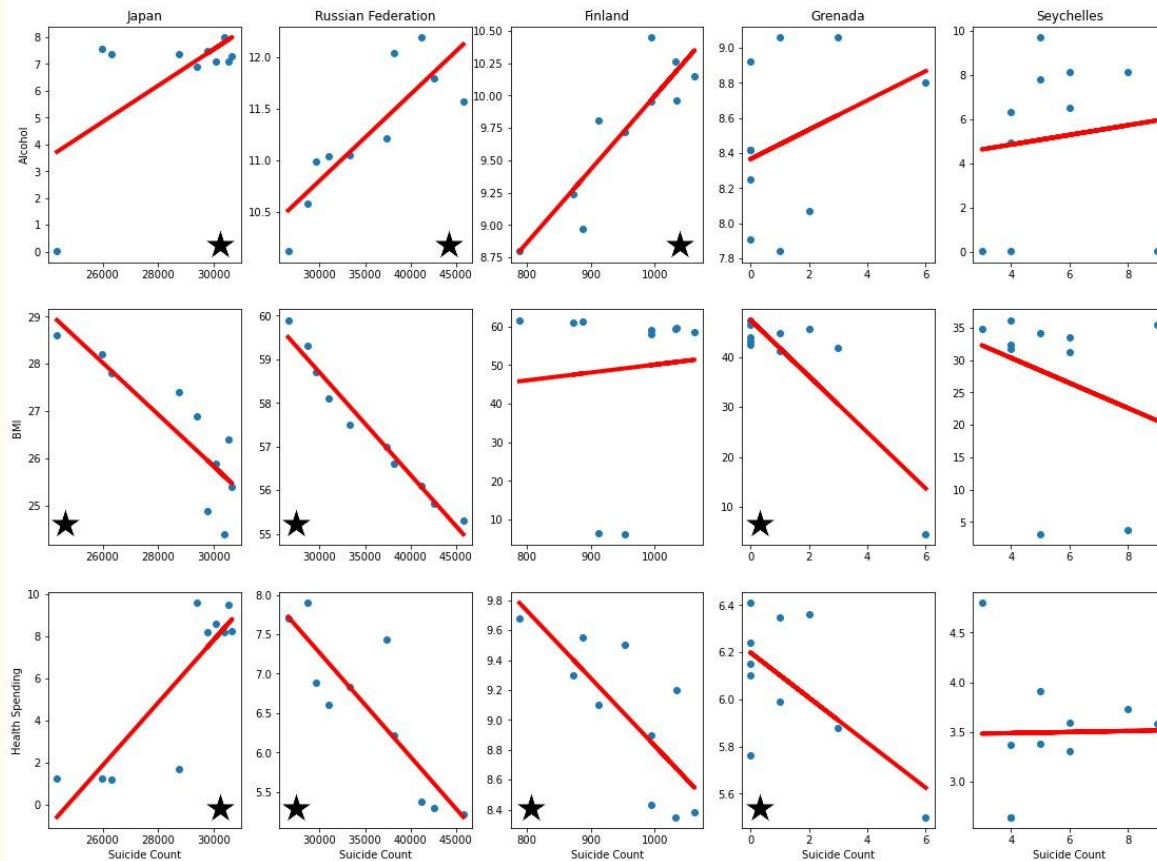
- Suicide rates vs non-socioeconomic factors
 - Historically, underrepresented factors
 - Investigated less common non-socioeconomic factors
- Emphasis on:
 - BMI
 - Substance (alcohol) use
 - Health spending
 - Happiness

Data

- 3 data sets
 - Suicide Rates Overview: 1985 to 2016 (Kaggle)
 - Life Expectancy (WHO)
 - 2018 World Happiness Report (UN Sustainable Development Goals)
- Focused on Years 2005-2015
- Also Happiness data from 2015
- Issues:
 - Merging of The Data Sets
 - Population Values For Life Expectancy

Non-socio-economic Analysis

Linear regression on bivariate plots



Non-socio-economic Analysis

Pearson Correlation Coefficients

	Japan	Russian Federation	Finland	Grenada	Seychelles
Alcohol	0.64931	0.84118	0.88941	0.35058	0.11007
BMI	-0.85788	-0.98457	0.07836	-0.86431	-0.28548
Health Spending	0.86932	-0.86471	-0.78031	-0.63346	0.01640

Happiness Analysis

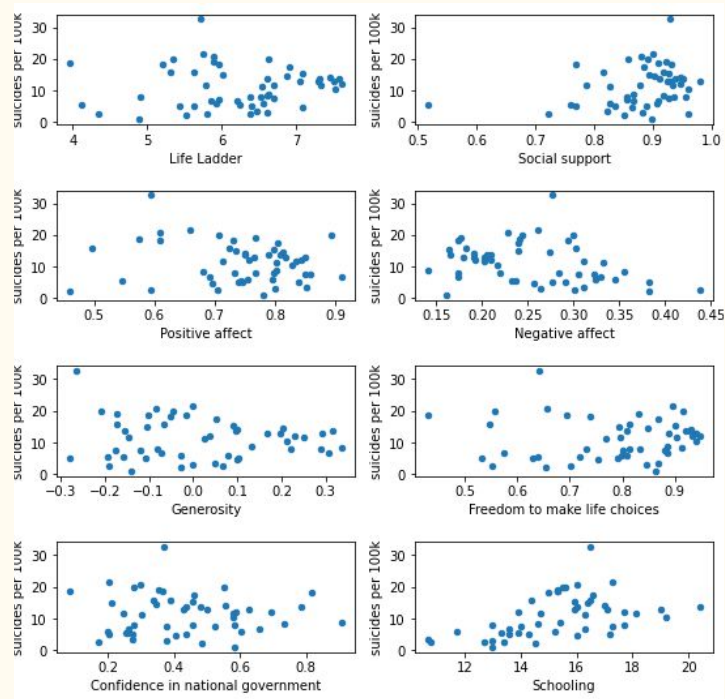


Fig 1. Scatterplots illustrating happiness variables' relationship to suicide rates per 100,000

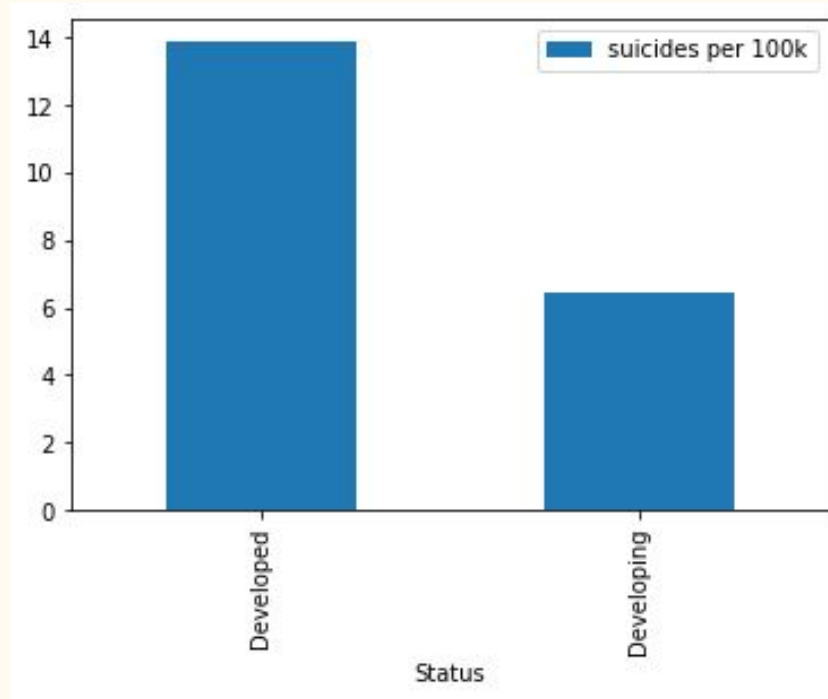


Fig 2. Histogram showing average suicide rates in developed and developing nations.

Conclusion

- Future avenues of research:
 - Data sets with less missing values
 - Happiness and suicide rates
 - “Better”/alternative metrics of happiness?
 - Suicide rates in “developed” vs “developing” nations
 - Definition of these words

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