Mental Health Across Time and Stages of Economic Development in Europe

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abstract: | [Replace this paragraph with your abstract. Summarize the background, data source, methods (ordinal regression & linear regression), key results, and implications in ~150–250 words.]

1 Introduction

[Mental health background and motivation. Cite prevalence, economic burden, and prior work on suicide and macroeconomic factors. End by stating the main research questions.]

2 Methods

2.1 Data and Preprocessing

[Describe the data source, time range, number of observations and variables, inclusion/exclusion criteria, handling of missing data, and any derived variables such as suicide-rate groups and GDP groups.]

Table 1: Characteristics of European States Included

Suicide Rate	Value
Median	12.28
1st Quartile	7.33
3rd Quartile	17.78
Mean	13.87

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2.2 Variable Selection

[Describe a priori variable selection, exploratory data analysis (scatterplots, boxplots), and rationale for including interactions.]

2.3 Model Fitting and Evaluation

[Explain the ordinal regression for suicide-rate groups and multiple linear regression for MRDP. Mention AIC, proportional-odds test, VIF, residual plots, Cook's Distance, confusion matrix, and R-squared.]

3 Results

3.1 Overview of Included Data

[Summarize the final analytic sample: number of rows, proportion in each GDP group and suicide-rate group, distribution across decades, and missingness.]

3.2 Research Question 1: Contributing Factors of Suicide Rate

[Text summary of the ordinal regression results, interpretation of key coefficients and interaction terms, proportional-odds check, and model accuracy.]

Table 2: Ordinal Regression Model Summary

Variable	Estimate	Std Error	t-value	p-value
Youth Unemployment	0.03	0.01	2.46	0.01
GDP Group (Low)	1.04	0.39	2.67	0.03
Number of Hospitals	-2.33e-4	1.08e-4	-2.15	0.03
HDI	2.84	0.22	13.19	<0.001
Available Produce	-0.01	0.001	-9.78	<0.001
Youth Unemployment * GDP Group	-0.039	0.02	-2.17	0.03

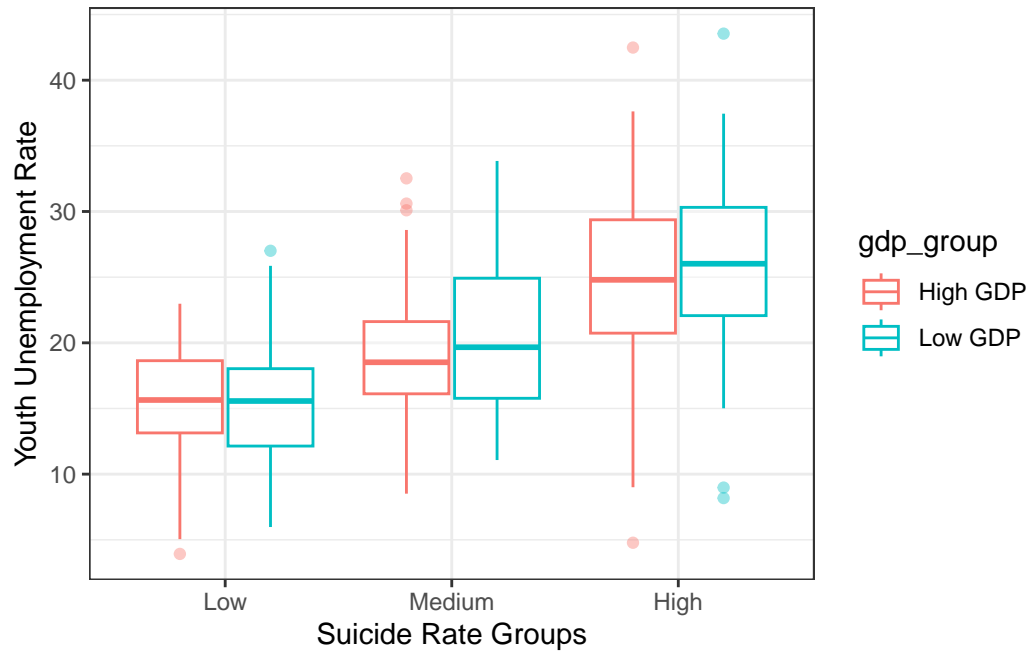[Interpretation paragraph explaining how the figure supports the model results.]

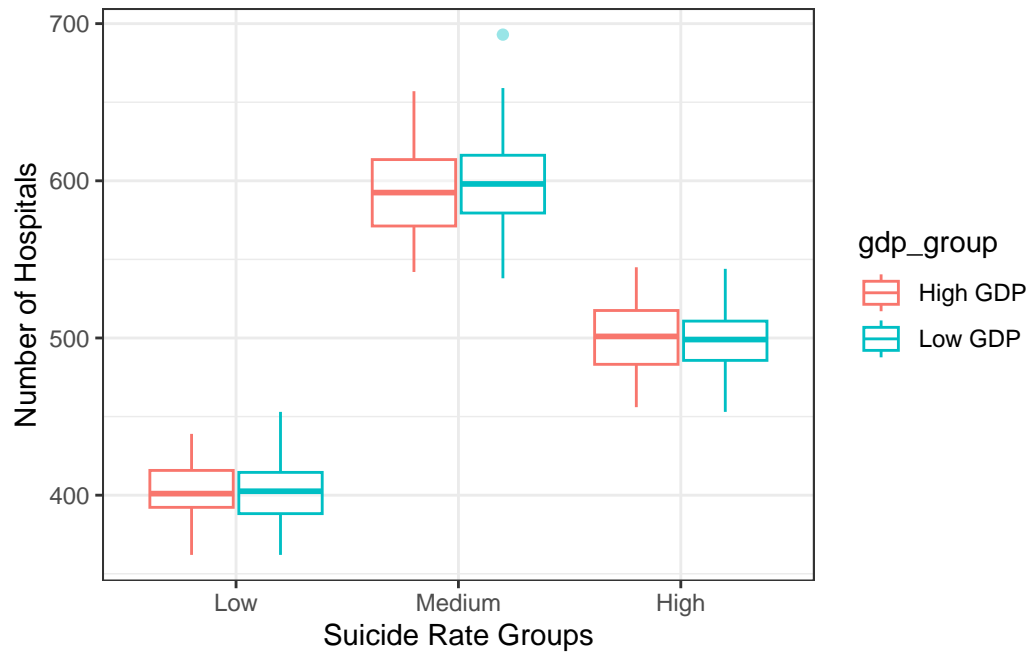Figure 1: Youth Unemployment by Suicide Rate Groups for High and Low GDP.

Figure 2: Number of Hospitals by Suicide Rate Groups for GDP Group.

3.3 Research Question 2: Contributing Factors of Mental-Related Disorder Prevalence (MRDP)

[Describe the exploratory plots, variable relationships, and motivation for including interactions between year group and unemployment rate.]
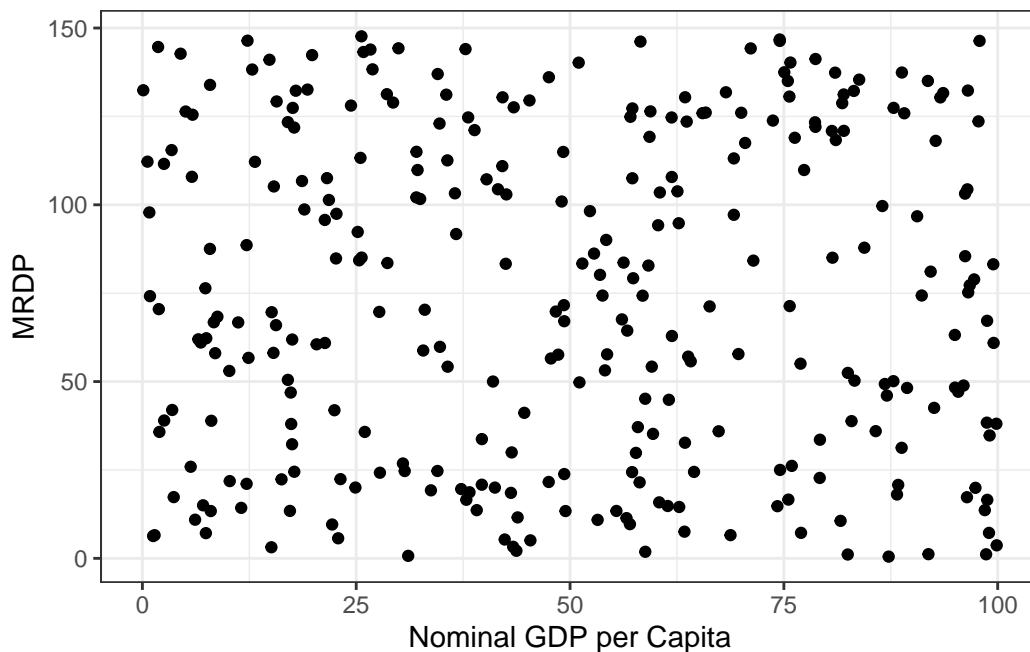

Figure 3: Effects of variables associated with MRDP.

[You can create separate chunks/figures for each small panel as in the original report, or use `patchwork`/`facet_wrap`.]

Table 3: MRDP Multiple Linear Regression Summary Table

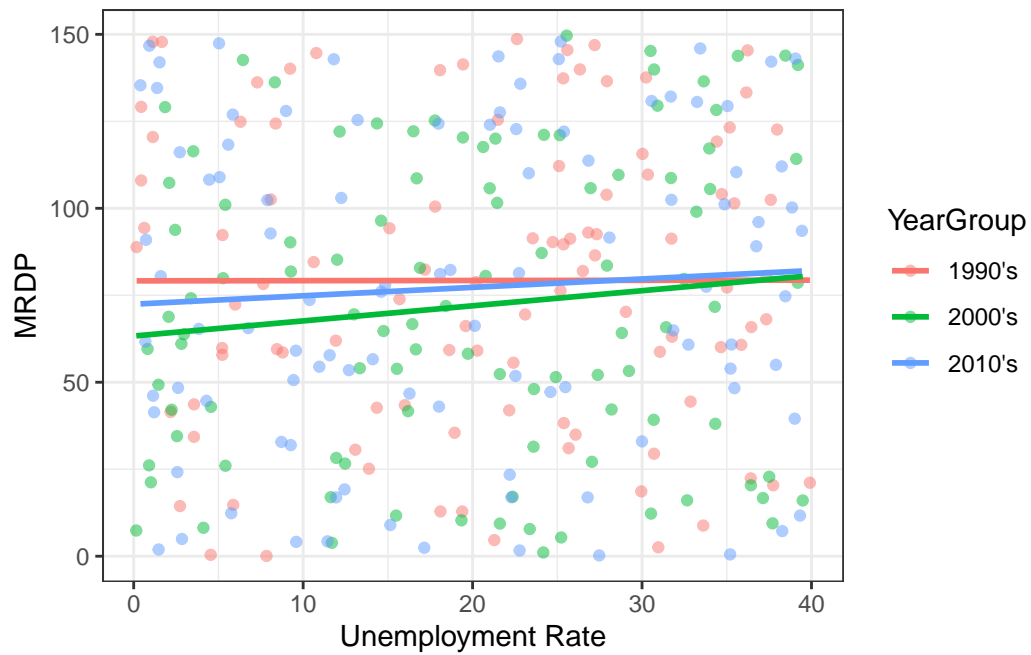| Characteristic	Beta	SE	95% CI	p-value
Unemployment Rate (%)	-0.039	0.129	-0.292, 0.215	0.766
Fat Availability (g/person/day)	0.112	0.021	0.070, 0.153	<0.001
Inflation Rate (%)	0.000	0.001	-0.002, 0.002	0.902
GDP per capita (thousand USD)	0.280	0.030	0.222, 0.338	<0.001
YearGroup: 2000's (vs 1990's)	3.361	2.040	-0.640, 7.363	0.100
YearGroup: 2010's (vs 1990's)	13.02	2.150	8.799, 17.24	<0.001
Unemp Rate * 2000's (vs 1990's)	-0.269	0.188	-0.639, 0.100	0.153
Unemp Rate * 2010's (vs 1990's)	-0.711	0.190	-1.085, -0.338	<0.001

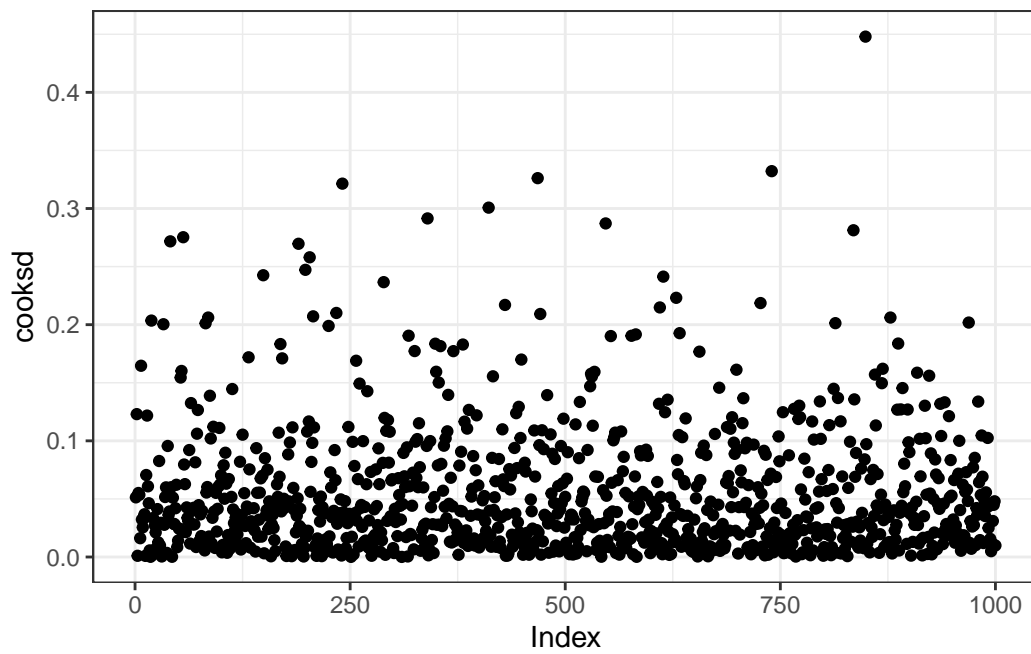Figure 4: Interaction between Unemployment Rate and Year Group.

Figure 5: Influential points measured by Cook's distance.

[Interpretation paragraph about the sign and significance of coefficients, model fit (adjusted (R^2)), and any assumption checks.]

4 Conclusion

[Summarize the main findings for suicide rates and MRDP, discuss policy implications, limitations (missing data, outliers, measurement issues), and directions for future research.]

5 References

1. [Replace with real WHO HFA-DB reference]
2. [Replace with global cost of mental illness reference]
3. [Add the rest of your bibliography manually, or switch to using a BibTeX file and Pandoc citations.]