

Remote Work On Mental Health



By
Robert Solomon

Supervised By
Dr. Vinayak Deshpande

Introduction


Research Topic: Investigating the Impact of Remote Work on Mental Health using Data Science Approaches.

The shift to remote work has been accelerated due to global events like COVID-19.

This project aims to explore both qualitative and quantitative data to understand the mental health implications.

Research Questions

1. How does remote work influence mental health indicators such as stress, isolation, and burnout?

A light green arrow pointing downwards from the first question box to the second.

2. Is there a statistically significant correlation between remote work and reported anxiety levels?

A light green arrow pointing downwards from the second question box to the third.

3. Can a predictive model be built to assess risk factors of poor mental health outcomes in remote settings?

Methodology

Primary data collection using online surveys distributed to remote/hybrid and onsite workers.

Secondary dataset sourced from publicly available mental health research databases. (Kaggle)

Statistical tools and techniques used: correlation analysis, regression modeling, and ANOVA testing.

Data Preprocessing & Analysis

Data Cleaning:
Removed
missing/null
entries,
standardized
responses.

Used Python
libraries
(Pandas,
NumPy) for
preprocessing.

Correlation
Heatmaps,
Histograms,
and Boxplots
were used for
EDA.

Linear
Regression &
ANOVA applied
to test
hypothesis.

Analysis & Findings

- • Correlation and regression analysis
- • Key findings from primary data
- • Key findings from secondary data

Analysis & Findings

Findings showed a moderate negative correlation between number of hours worked remotely and social connectedness.

Regression indicated that age and workload were significant predictors of mental health score.

Analysis & Findings

Key findings
from primary
data

Key findings
from
secondary data

Model Comparisons

	Model	Score_Type	Score_Value
0	OLS Regression	R-squared	0.0060
1	Binary Logistic Regression	Pseudo R-squared	0.0001
2	Decision Tree	Accuracy	0.5860
3	Random Forest	Accuracy	0.6250

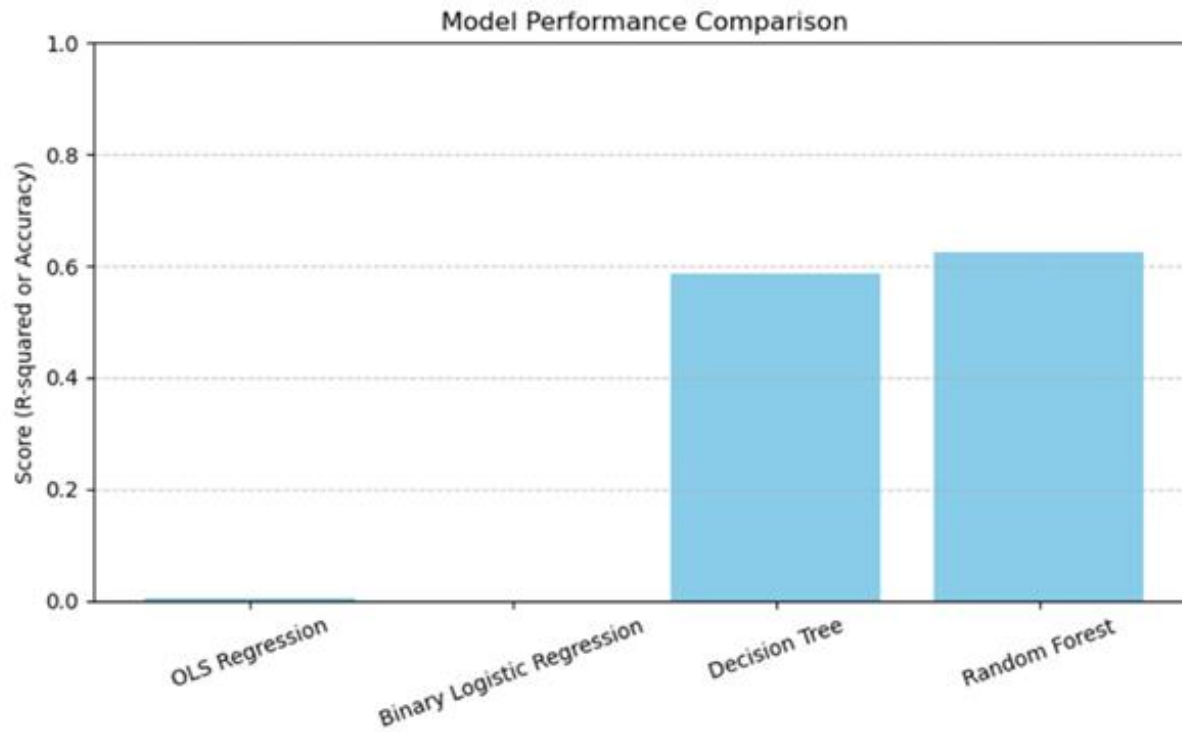


Figure 6 - Bar chart of **Model Comparisons** (Secondary Data)

Model Comparisons

Discussion



- Interpretation of results



- Comparison with existing literature



- Implications

Conclusion & Recommendations

Conclusion: Remote work presents both risks and benefits—flexibility vs. isolation.

Recommendations: Employers should foster community and encourage regular check-ins.

Self-Reflection & Challenges



Challenge: Planning and executing primary data collection required persistence and adaptability.



Data preprocessing for secondary data was time-intensive due to inconsistencies and noise.



Lessons learned: Importance of version control (used GitHub privately), and documenting all preprocessing steps clearly.



My Github: [Robert-Solomon12](#)

Future Work



- Recommendations for future research



- Improvements and extensions

References



APA/Harvard
style references



Tools used for
citation

Thank You!





OPEN TO
QUESTIONS?





CONTACT INFORMATION



[Linkedin:](#) robertosolomon

[GITHUB:](#) ROBERT-SOLOMON12