Impact of the COVID-19 Pandemic on Students' Behavior and Well-being

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CONTENTS

INTRODUCTION

- COVID-19 pandemic forced unprecedented shifts in education worldwide
- Abrupt transition to remote learning environments
- Study investigated 1,182 student responses on:
  - Time allocation patterns
  - Digital behaviors
  - Health outcomes and well-being
- Research focused on the Delhi-NCR region and beyond

DATA ANALYSIS APPROACH

- Chi-square tests for associations between categorical variables
- ANOVA for comparing means across groups
- Logistic regression to predict health outcomes
- Correlation analysis to identify relationships between variables
- Ordinal regression for online learning experience factors

Key Finding 1: Health and Time Allocation

- Students with and without health issues showed similar sleep patterns (avg 7.87 hours) Physical activity was a protective factor:
- Healthier students spent more time on fitness (0.780 vs 0.675 hours)
- Significant negative association between fitness time and health issues
- Sleep duration negatively associated with health issues (protective effect)
- TV watching time showed weak positive association with health issues

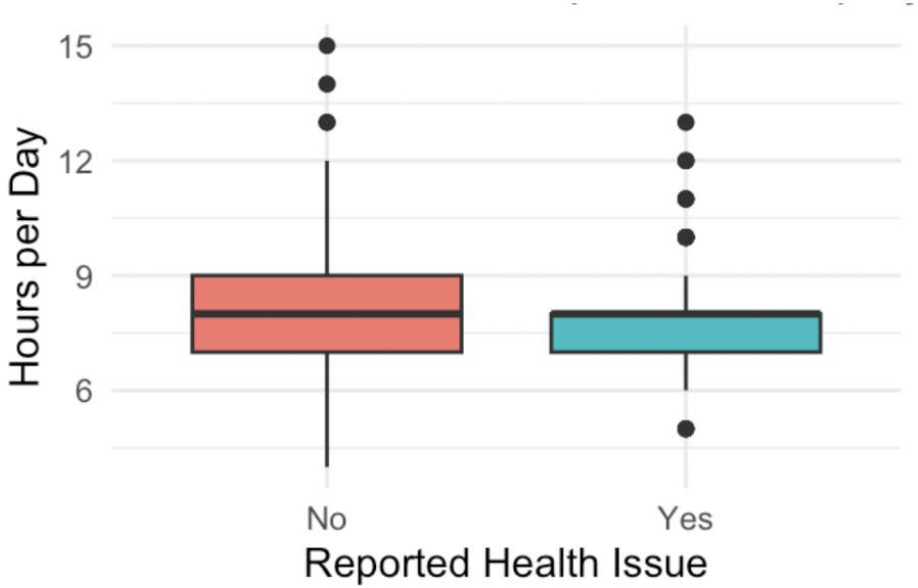

Figure 3.1: Sleep Time vs Health Issues

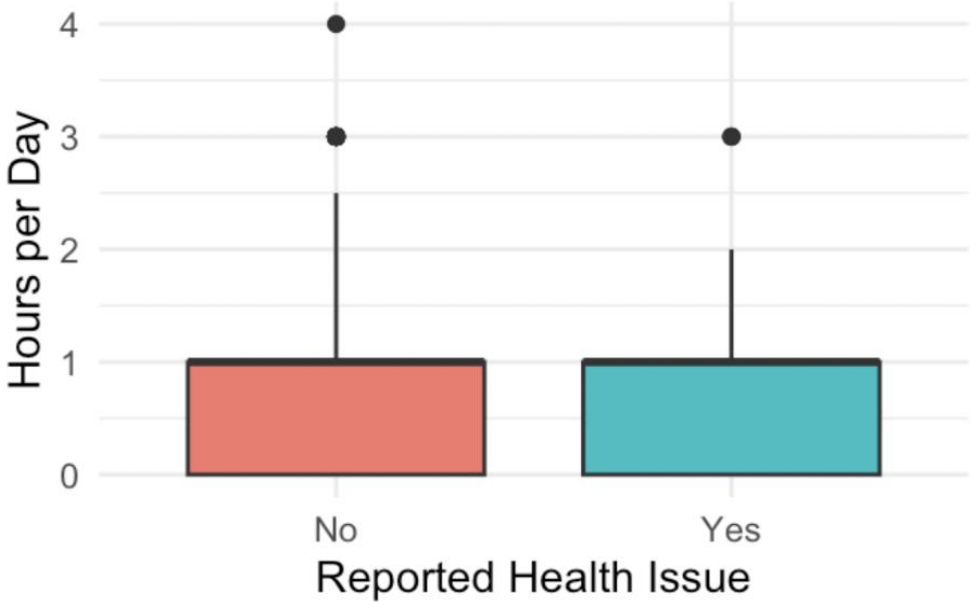

Figure 3.2: Fitness Time vs Health Issues

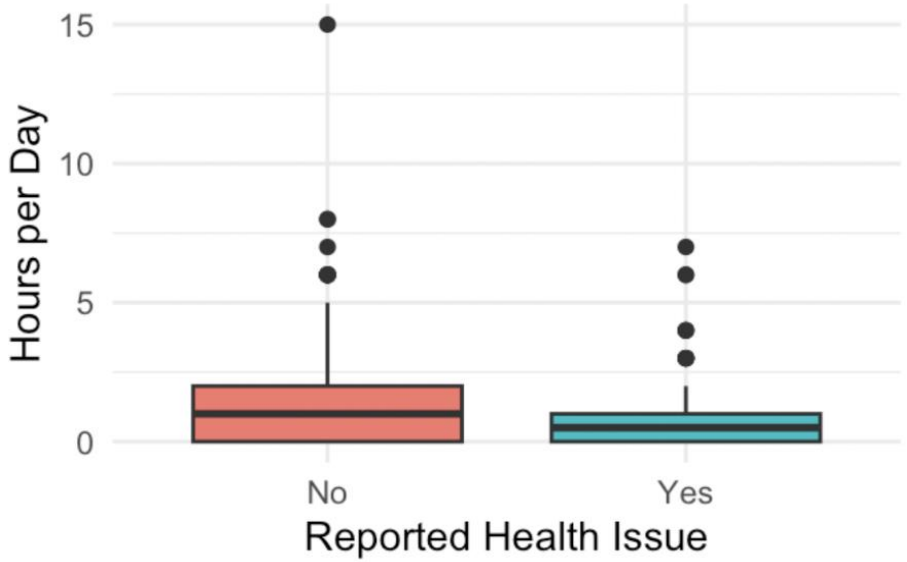

Figure 3.3: Time Spent Watching TV vs Health Issues

Key Finding 2: Weight Change Dynamics

- ➢ Significant association between weight change and health status (χ^2 = 10.05, p = 0.001524)
- ➢ Students reporting decreased weight:
  - Spent more time on fitness (0.947 hours)
  - Spent less time on social media (2.46 hours)
- ➢ Students reporting increased weight:
  - Spent less time on fitness (0.681 hours)
  - Spent more time on social media (2.52 hours)
- ➢ Self-study time did not significantly differ across weight change groups

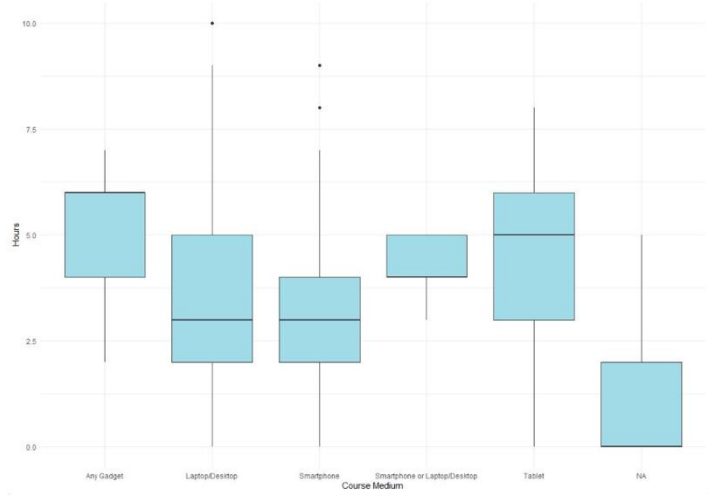

Figure 3.6: Analysis of Hours Spent Studying for Different Media

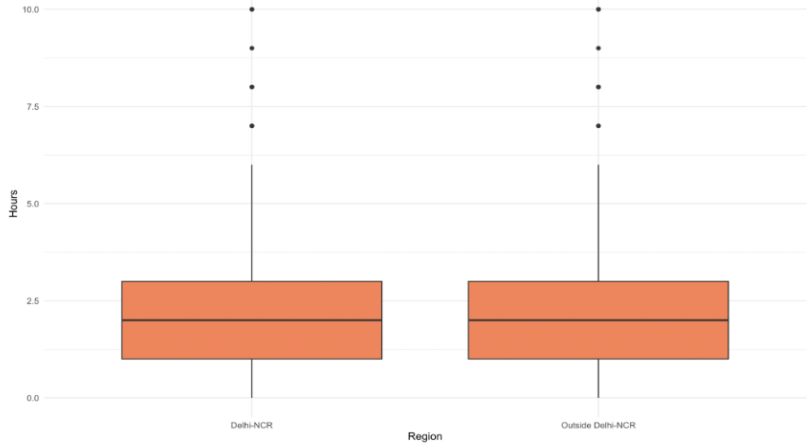

Figure 3.7: Social Media Usage by Region

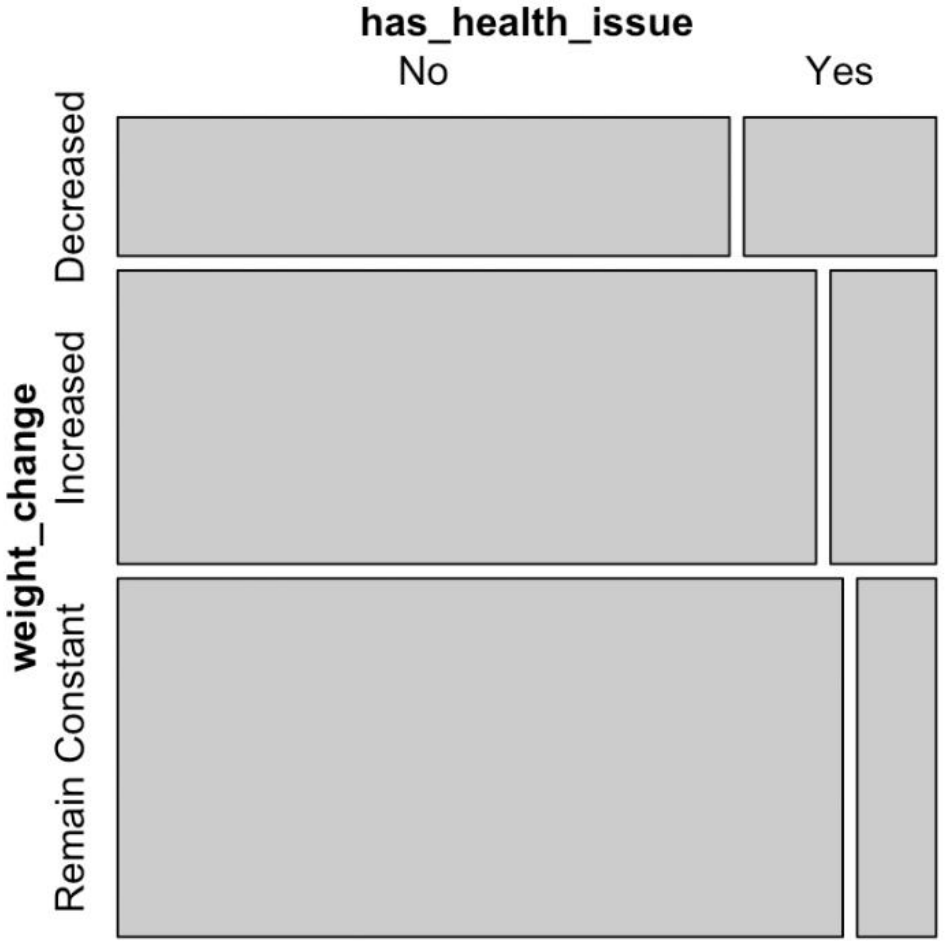

Figure 3.4: Change in Weight vs Health Issues

Key Findings 3: Social Media Usage Patterns

- Platform preferences showed strong concentration:
- Facebook, WhatsApp, and YouTube dominated
- Social media usage consistent across regions (~2.0 hours median)
- Significant negative correlation between self-study and social media time ($r = -0.16$, $p < 0.001$)
- Younger students spent more time on social media, less on online classes

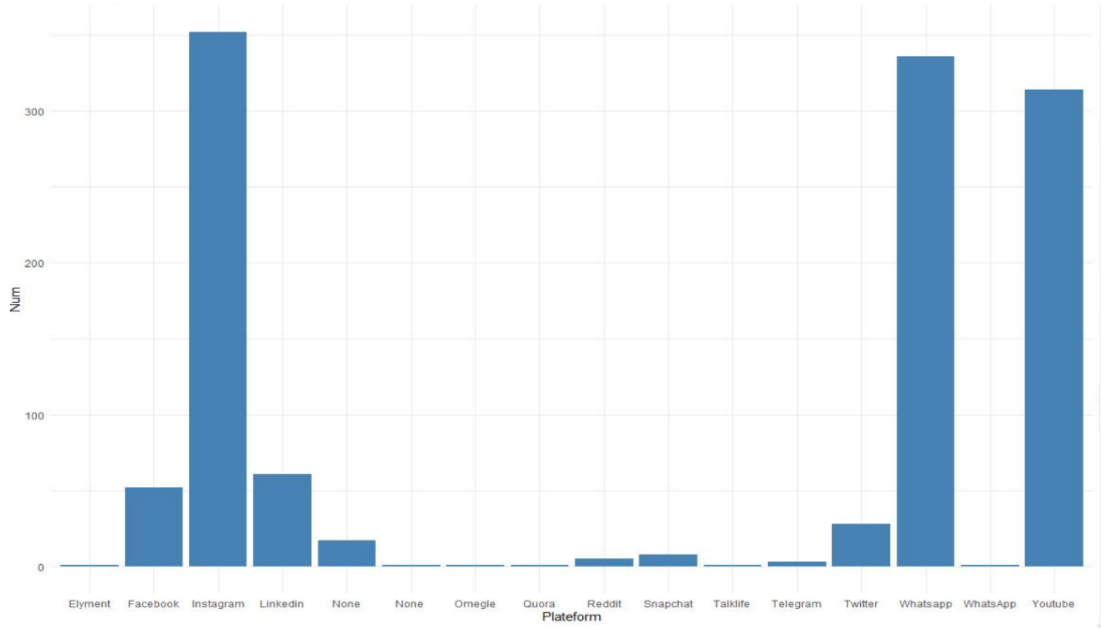

Figure 3.8: Social Media Usage Patterns

Correlation Analysis

- Strong correlation between total time spent and self-study time (r = 0.73) Academically engaged students had more structured time usage
- Moderate negative correlation between sleep and self-study (r = -0.22) Some students sacrificed sleep for academic work
- Students with better health reported more effective time utilization Time management skills may mediate pandemic health outcomes

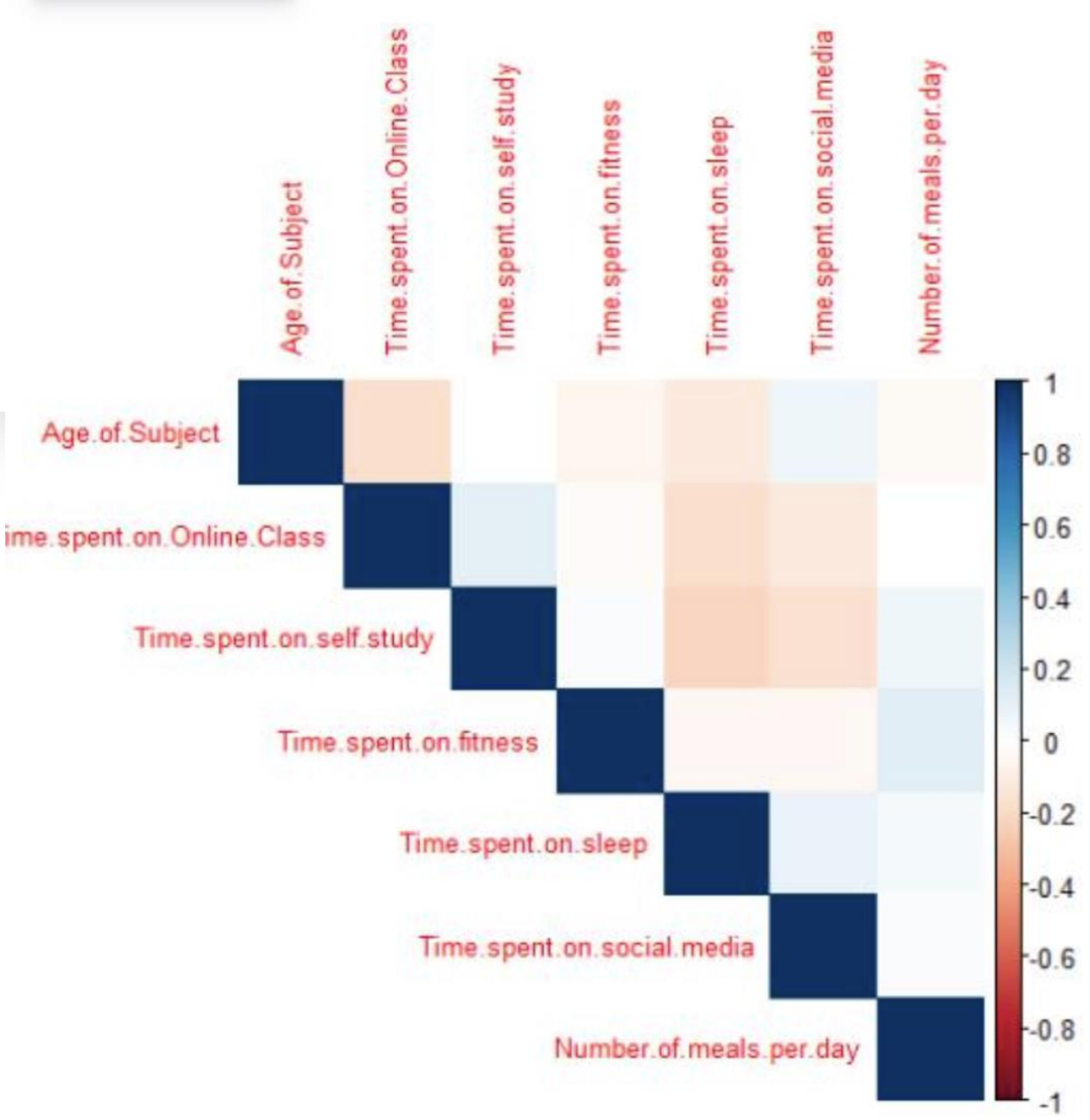

Figure 3.9: Correlation Analysis

Statistical Analysis

- **Chi-Square Tests**: Examined association between weight change and health issues ($\chi^2 = 25.197$, $p = 3.378 \times 10^{-6}$)
- **T-Tests**: Compared fitness time between health status groups ($t = -1.7039$, $p = 0.08986$)
- **ANOVA**: Analyzed differences in self-study time across weight change groups ($F = 1.028$, $p = 0.358$)
- **Logistic Regression**: Predicted health issues based on time allocation patterns (sleep, fitness, TV, meals)
- **Ordinal Regression**: Identified factors affecting online learning experience ratings

Limitations & Future Research

Limitations:

- Cross-sectional data, no longitudinal insights
- Potentially limited regional representativeness
- Self-reported measures may have recall bias

Future Research:

- Longitudinal studies on adaptation patterns
- Investigate unexpected association between meal frequency and health
- Experimental studies comparing learning platforms
- Deeper exploration of time management interventions

Conclusion

- Physical activity emerged as significant protective factor for health Trade-offs between academic and leisure activities affected well-being
- Moderate online class time (4-6 hours) associated with optimal satisfaction
- Device choice significantly impacted learning experience
- Time management skills may mediate pandemic-related health outcomes
- Research provides foundation for developing student support systems in digital learning environments

THANK YOU