Individual Proposal

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Analysis 1: The Relationship Between Social Support and Loneliness

Predictor Variables: PSYCH\_zimet\_multidimensional\_social\_support\_scale\_joys: This variable measures the level of perceived social support participants receive from family and friends. It is chosen because higher social support is hypothesized to reduce feelings of loneliness.

Outcome Variables: LONELY\_ucla\_loneliness\_scale\_left\_out: This scale quantifies feelings of loneliness. It is relevant as it captures participants’ subjective experiences of social isolation.

Exploration Plan: Descriptive statistics (mean, median, standard deviation) will summarize the distributions of both social support and loneliness scores. Visualizations such as scatter plots will illustrate the relationship between these variables, allowing for a clearer understanding of their correlation.

Analysis Plan: I will perform a simple linear regression analysis to evaluate the relationship between social support and loneliness. Key assumptions include linearity, independence of observations, and homoscedasticity.

I hypothesize that there will be a significant negative correlation between social support and loneliness, suggesting that greater perceived social support leads to reduced feelings of loneliness. This finding could inform public health initiatives aimed at enhancing social support systems to improve mental health.

Analysis 2: Community Engagement and Life Satisfaction Across Demographics

Predictor Variables: CONNECTION\_activities\_community\_p3m: This variable reflects participation in community activities over the past three months. It is chosen for its potential to enhance social interactions and overall life satisfaction.

Outcome Variable: WELLNESS\_life\_satisfaction: This measure assesses participants' self-reported satisfaction with their lives. It is a crucial outcome for evaluating the impact of social engagement on well-being.

Exploration Plan: Summary statistics will provide insights into the distribution of life satisfaction scores by levels of community engagement. I will use box plots and bar charts to visualize differences in life satisfaction across demographic groups.

Analysis Plan: I will conduct an analysis of variance (ANOVA) to compare life satisfaction scores based on varying levels of community engagement. Assumptions include normality of the data and homogeneity of variances.  
I expect to find that higher levels of community engagement are associated with increased life satisfaction. Confirming this hypothesis would underscore the importance of community involvement in promoting well-being, particularly in public health messaging.

Analysis 3: Impact of COVID-19 Preventive Behaviors on Mental Health Outcomes

Predictor Variables: COVID\_prevention\_masks: This variable indicates the frequency of mask-wearing practices. It is chosen due to its relevance during the pandemic and potential impact on individuals’ social interactions and mental health.

Outcome Variables: WELLNESS\_malach\_pines\_burnout\_measure\_hopeless: This scale measures feelings of hopelessness, a critical indicator of burnout. It provides insight into the mental health effects of preventive measures.

Exploration Plan: I will summarize the burnout scores in relation to adherence to COVID-19 preventive behaviors using descriptive statistics and visualizations like box plots to illustrate differences in burnout levels across varying adherence.

Analysis Plan: A simple linear regression analysis will assess the impact of adherence to preventive measures on burnout levels. Relevant assumptions for this analysis include linearity and normality of residuals.

I hypothesize that increased adherence to COVID-19 preventive measures will correlate with higher levels of burnout. If supported, this finding will highlight the need for targeted mental health support during public health emergencies.