

**STA130 - University of Toronto**

**Individual Proposal Submission**

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#### Research Question

Does the frequency of social interactions positively impact self-reported mental health across different demographic groups?

This question taps into the core idea that more frequent social connections could lead to better mental health. Using data from the CSCS survey, I'll explore whether regular interactions (like catching up with friends or participating in community events) show a link to mental health, potentially guiding approaches to support well-being in various groups.

#### Key Variables and Visualizations

##### 1. Mental Health Score

Description: This is a self-reported measure of mental health or well-being, possibly on a 1-10 or a low-high scale.

Visualization: A histogram of mental health scores to see the general well-being distribution. This would help show whether more people report high or low mental health, which is useful for

comparing across different interaction levels.

## 2. Frequency of Social Interactions

Description: Measures how often people engage socially (daily, weekly, monthly).

Visualization: A bar chart showing how frequently people interact, plus a box plot that displays mental health scores for each level of interaction. This would show if people who interact more often have higher well-being scores.

## 3. Demographic Factors (e.g., Age, Income Level)

Description: Demographic data, like age and income, might affect mental health, so I'll control for these to focus on how interaction frequency specifically impacts well-being.

Visualization: A stacked bar chart showing interaction frequency and mental health scores across age and income groups to uncover any patterns within these subgroups.

## Hypothesis, Expected Results, and Relevance

Hypothesis: People who interact more frequently (e.g., daily or weekly) are likely to report better mental health. I expect this effect to be strongest for younger people and those in lower income brackets who might rely more on social connections.

Expected Results: I anticipate a positive correlation, showing that frequent social engagement correlates with higher well-being scores. Some demographic groups might show stronger or weaker relationships, adding depth to the findings.

Relevance: If there's a clear link between social interaction and mental health, it would highlight the importance of community connections. Findings could inform programs aimed at promoting well-being, especially for groups that benefit most. By understanding these relationships, we can support initiatives that encourage social bonds, contributing to healthier communities.