MIND MATTERS:

How Society, Work, and Connection Shape Well-Being

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INTRODUCTION

- This presentation examines how contextual factors such as societal, workplace and social influence individuals' mental health and well-being in different contexts including gender differences, work-from-home impacts and social interaction patterns.
- The data that we will be using in this paper is the Canadian Social Connection Survey (CSCS) which includes a number of participants of different genders and age categories, thus, offering a deep understanding of the social and psychological processes.
    - The studie will seek to examine the following outcomes; body image concerns among different genders, burnout rates among those working from home and the relationship between the frequency of social interactions and mental health.

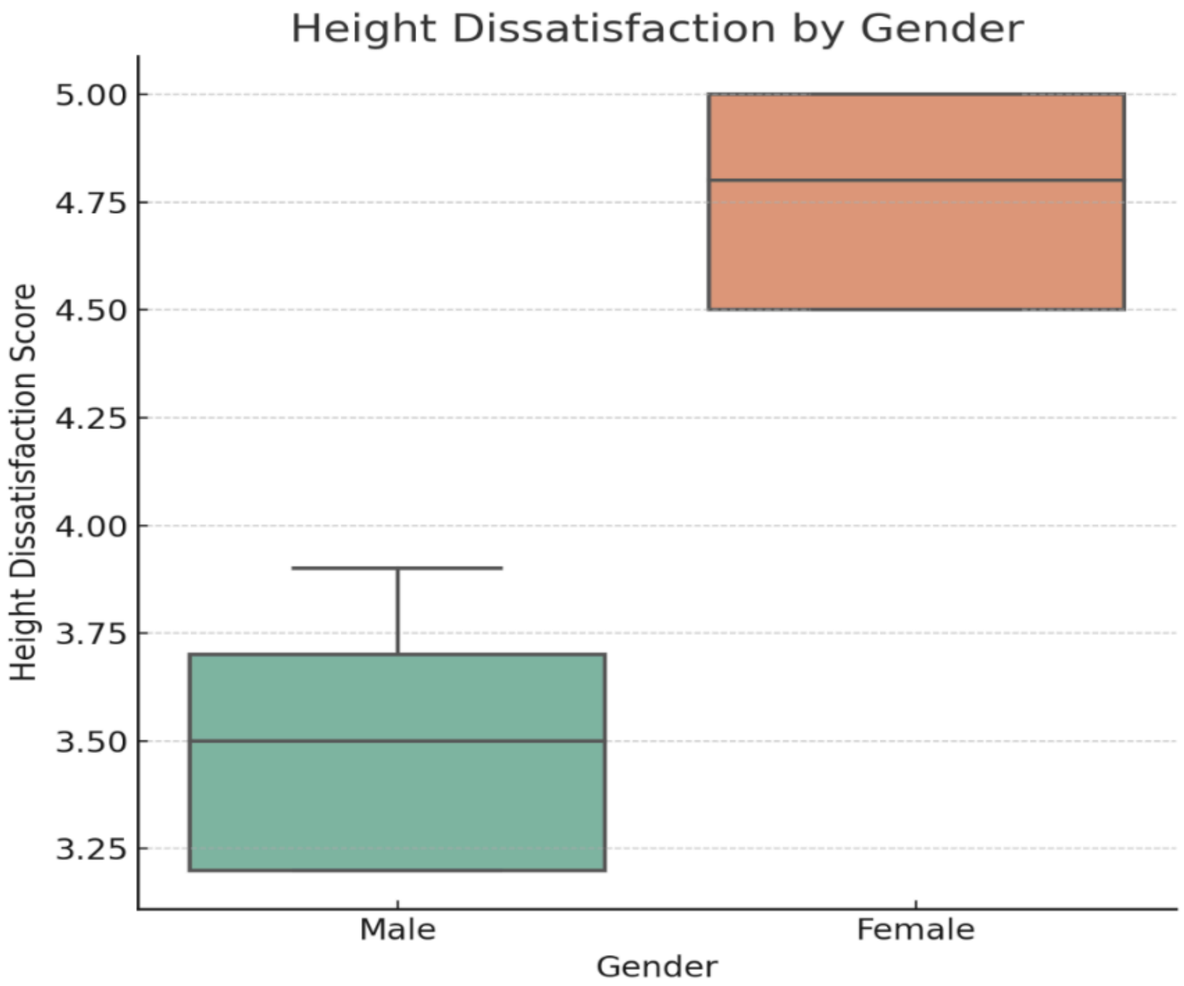
THEME AND AUDIENCE

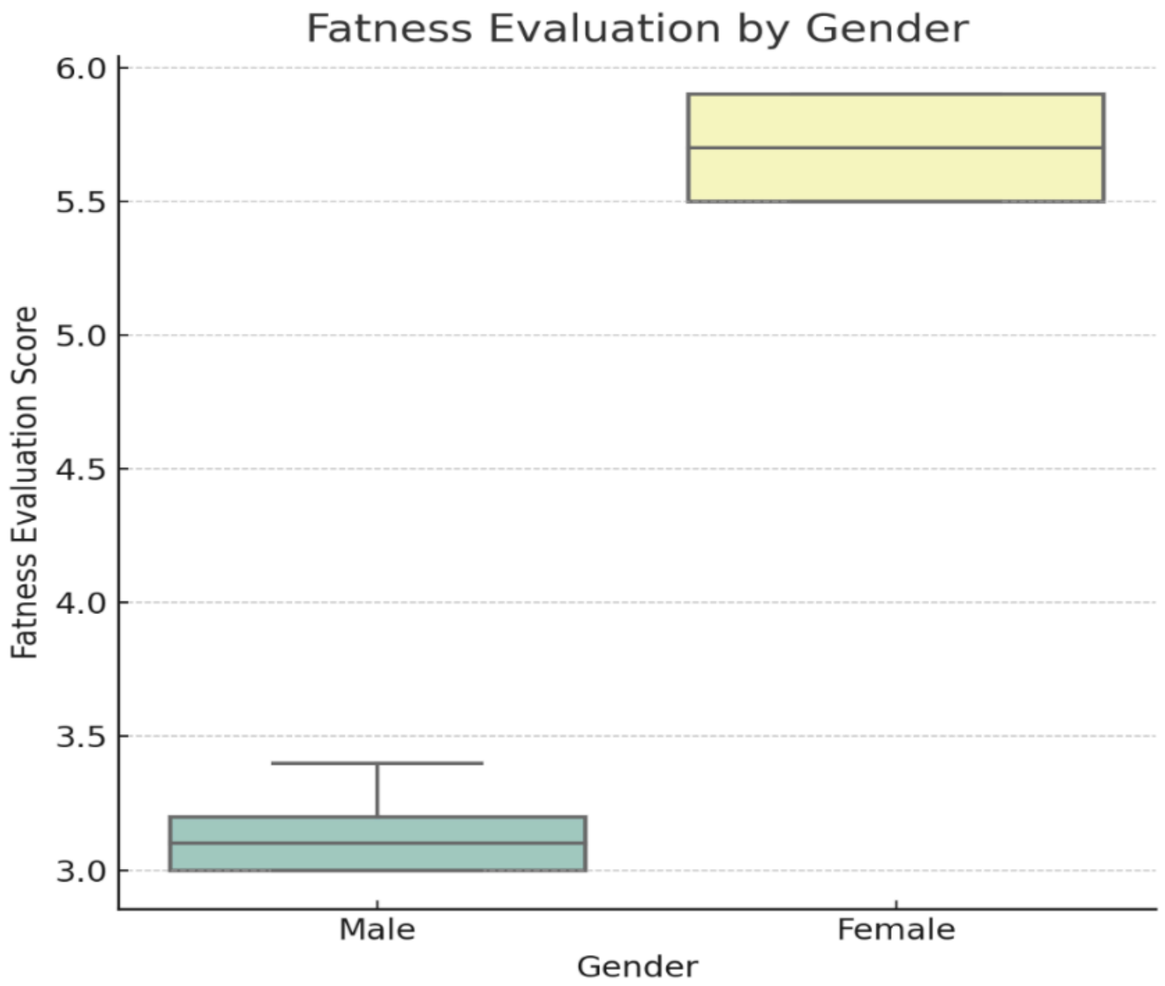
- In this presentation we will look at how the demographic and psychological factors affect individual well-being and self-concept.
- The use of data to analyze the behaviour of people's mental health, social behaviour and self-image across different groups of people.
- Our Audience:
- Researchers: They may be interested in the relationship between social factors and psychological factors and the consequences for mental health.
- Advocacy groups: aiming at raising awareness of the needs of the society in relation to mental health, stereotypes, and body confidence and acceptance projects.

BODY IMAGE AND GENDER: EXPLORING SELF-PERCEPTION AND SOCIETAL PRESSURES

- **Question**: Do men and women differ significantly in body self-image perceptions, specifically height dissatisfaction and fatness evaluation scores?
- **Variables**:
  - DEMO_gender: This variable categorizes participants by gender, allowing for comparisons in body self-image across groups.
  - PSYCH_body_self_image_questionnaire_height_dissatisfaction_score and PSYCH_body_self_image_questionnaire_fatness_evaluation_score: Measures of participants' dissatisfaction with their height and body fatness, respectively.
- **Null Hypothesis**: There is no significant difference in body self-image scores between men and women.
- **Value and Motivation**:
  - Focuses on major social and psychological problems concerning the mental health and wellbeing of people in various settings with an emphasis on gender, workplace, and interpersonal relations.
  - Offers practical recommendations for mental health practitioners, employers, and policy makers on how to create effective strategies for enhancing health and resisting social pressures.
  - Addresses current and compelling issues like the COVID-19 lockdown and the need for relationships, which enhances the understanding of people's behavior and mental health issues.
  - To help the public health programs and campaigns, this paper outlines the conditions affecting mental health, so that improvements can be made in people's quality of life based on facts.

Visualization: Box plot





Observations

MALE

- *Height:*
  - *Median score for males: 3.5*
  - *Distribution: IQR: 3.25 - 3.75*
  - *Mln: 3, Max 3.9*
- *Fatness:*
  - *Median: 3.0*
  - *IQR: 3.0-3.25*
  - *Mln: 2.9, Max:3.533*

FEMALE

- *Height:*
  - *Median: 4.75*
  - *Distribution: IQR: 4.5-5*
  - *Mln: 4.2, Max 5.1*
- *Fatness:*
  - *Median: 5.5*
  - *Distribution: IQR: 5.3-5.8*
  - *Min: 5.1, Max 5.9*

- Females are more unhappy with their height (4.75) and fatness (5.5) than males (3.5) and 3.0 respectively.
- The female scores also have a wider standard deviation which indicates that the experiences of women are more complex and may be influenced by social norms. This suggests that there is a difference in the way that women are affected by societal pressures regarding weight.
- The difference in the rating of fatness is striking, especially given that the participants rated height as the most important factor for attractiveness, which suggests that the cultural pressure regarding weight affects women more than men.

ANALYSIS METHOD: T-TEST

Metric	Male Mean	Female Mean	t-Statistic	p-Value
Height Dissatisfaction	3.478	4.762	-30.707439931083673	4.900713522635789e-52
Fatness Evaluation	3.1100000000000008	5.700000000000001	-97.04766500883785	5.912635812051468e-84

- The negative t-statistics shows that males have statistically significant lower dissatisfaction with height when compared to females. 0.001. Also, the extremely the small same p-value, shows the that negative the t-statistics difference indicate that males have a significantly lower level ratings of fatness than females. Likewise, the p-value is even smaller than that of the height dissatisfaction, thus strengthening the statistical difference.
- The study confirms the hypothesis that gender affects the body image perception; females were more negative than males in both comparisons.

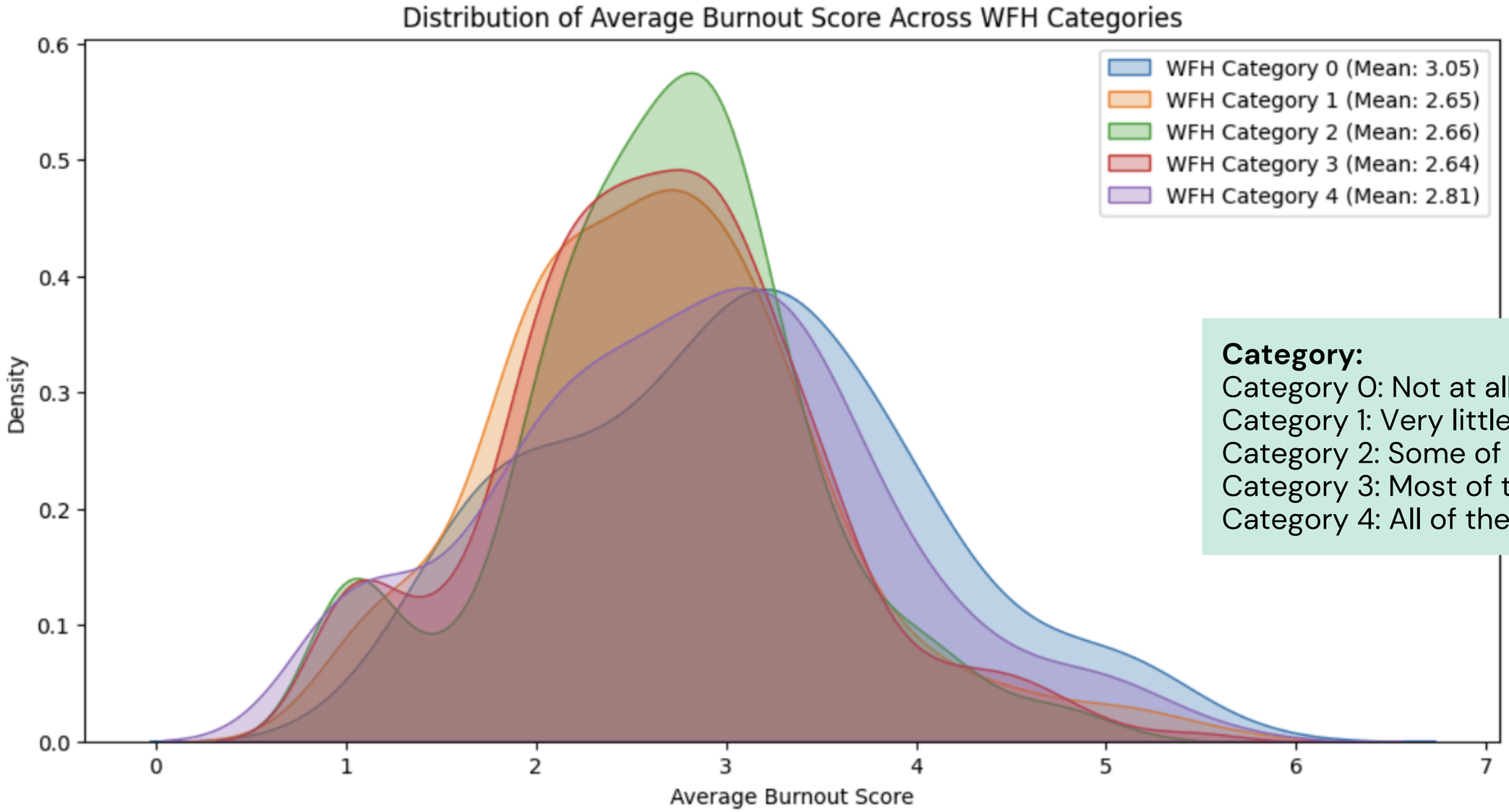
RESULTS

- The results show a significant difference between men and women in body dissatisfaction scores.
- In case of height dissatisfaction, women had a higher mean of 4.762 while men had 3.478 with a p-value of 4.9×10^{-52}. Likewise, in the case of fatness evaluation females had a higher mean of 5.700 and males had a mean of 3.110 with a p-value of 5.9×10^{-84}.
- These findings negate the null hypothesis and thus support the assertion that women are more affected by the answer pressure the that research is question put in by a the meaningful society and regarding coherent body way. image. In The conclusion, results the are research statistically hypothesis significant which and stated help that to women would have higher body dissatisfaction scores as they are affected by societal pressure on body image has been supported and thus ends the analysis.

HYBRID, REMOTE, OR IN-OFFICE: HOW WORK SETTINGS INFLUENCE EMPLOYEE BURNOUT

- **Question :** Does transitioning to a work-from-home setting during the pandemic significantly affect reported burnout levels compared to those who did not transition?
- **Motivation**
  - Burnout is a critical issue for productivity and mental health, and understanding its causes is vital.
- **Value**
  - Informs sustainable hybrid/remote work models post-pandemic.
- **variables:**
  - **Outcome Variables**: Burnout measures (WELLNESS_malach_pines_burnout_measure_*)
  - **Grouping Variable**: WORK_shift_from_home
- **Analysis methodology**
  - Bootstrapping:
    - A resampling technique was used to estimate the mean differences in burnout scores between:
      - **Non-WFH vs. Partial-WFH.**
      - **Full-WFH vs. Partial-WFH.**
    - 1,000 bootstrap samples were generated for each comparison.
    - Observed mean differences and 95% confidence intervals (CI) were calculated.
  - Null Hypothesis Testing:
    - H0: There is no difference in burnout scores between groups (mean difference = 0).
    - Rejection of H0 was based on whether the 95% CI excluded 0.

Visualization



Category:
Category 0: Not at all.
Category 1: Very little of the time.
Category 2: Some of the time.
Category 3: Most of the time.
Category 4: All of the time.

INTERPRETATION

HIGHER BURNOUT IN NON-WFH (CATEGORY 0):

Employees who never work from home report the highest average burnout scores, suggesting a potential relationship between lack of WFH flexibility and increased burnout.

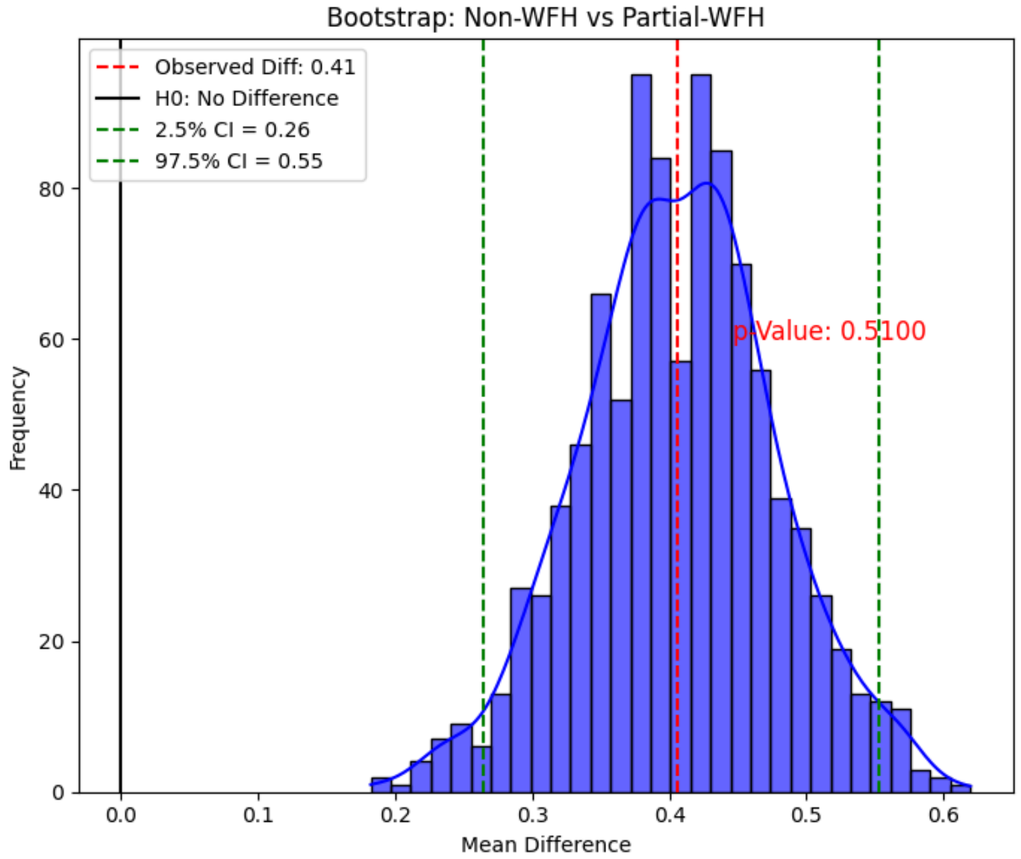
SLIGHT BURNOUT INCREASE IN FULL-WFH (CATEGORY 4):

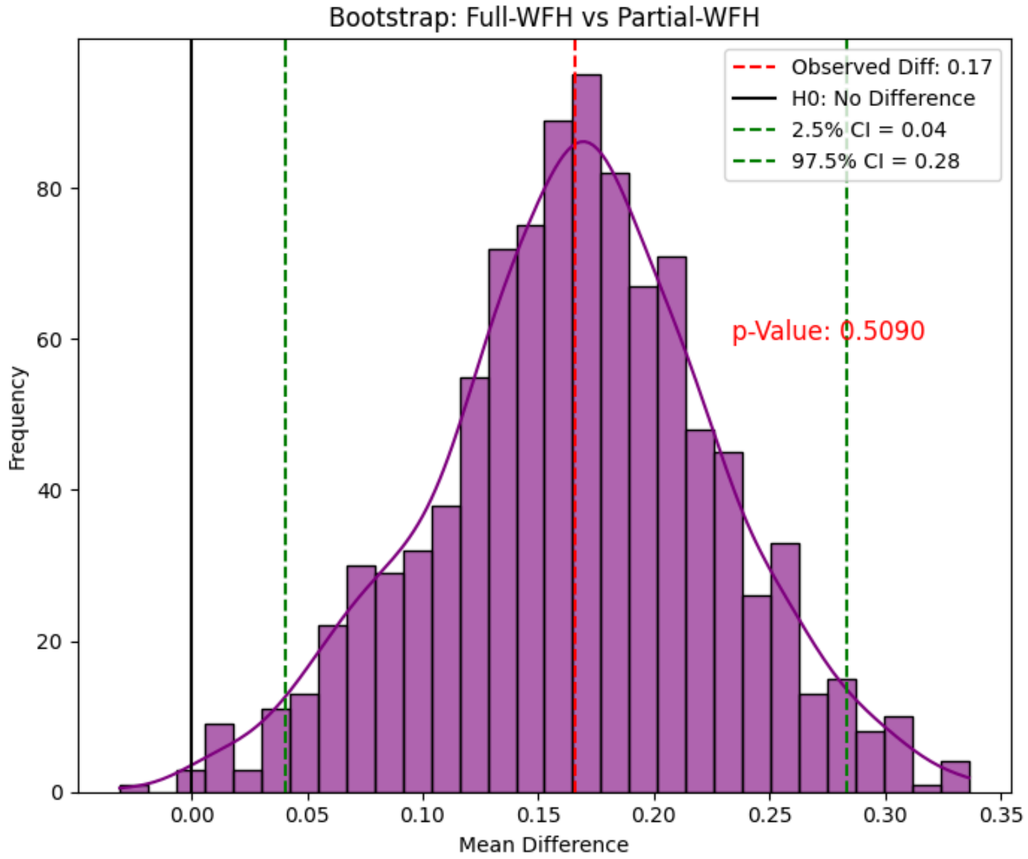
Employees who work from home all the time have higher average burnout scores than those in Categories 1–3, possibly due to factors like isolation or lack of work-life balance.

LOWEST BURNOUT IN PARTIAL-WFH GROUPS (CATEGORIES 1–3):

Employees with partial WFH arrangements report the lowest burnout scores, suggesting that a balanced work environment may reduce burnout.

Result





Category:
Partial-WFH:
Very little of the time WFH., Some of the time WFH., Most of the time WFH.
Non-WFH:
Not at all WFH.
Full-WFH:
All of the time WFH.

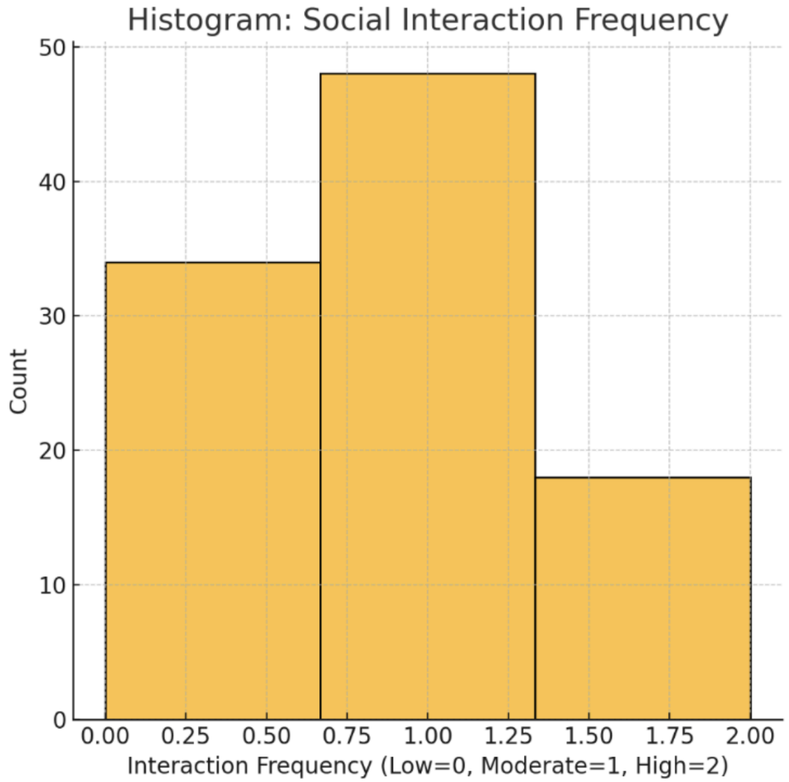
RESULTS

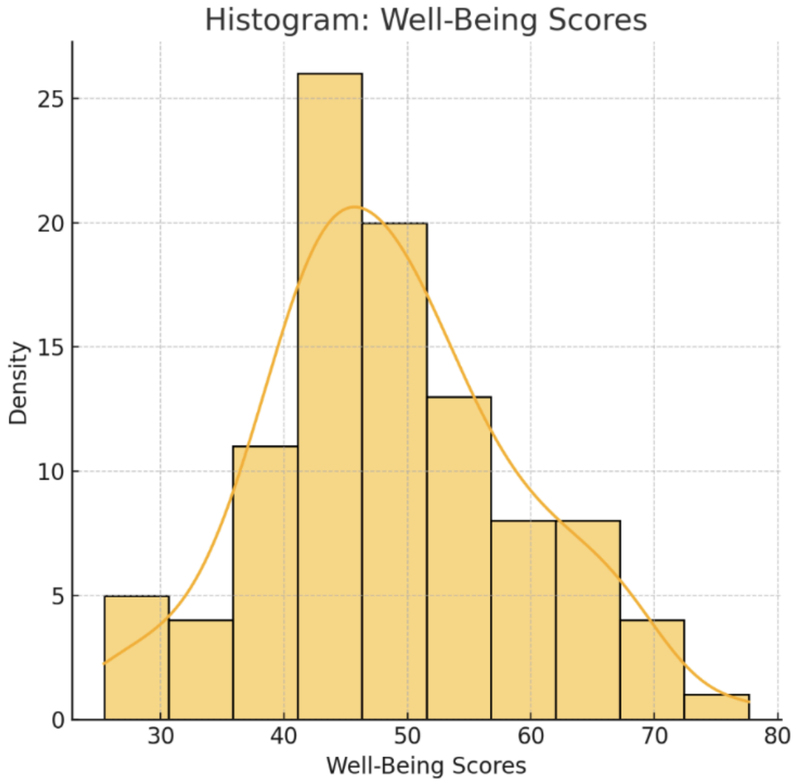
- **Left Graph: Non-WFH vs. Partial-WFH**
  - Since p-values (0.5100) is greater than 0.1, failed to reject H0
  - But the 95% confidence intervals for both comparisons exclude 0, this suggests that there may be a meaningful difference in burnout scores between Non-WFH vs. Partial-WFH.
  - **Interpretation**:
    - The higher burnout levels among Non-WFH employees could be attributed to stressors like commuting, rigid work schedules, or less flexibility in balancing work-life demands.
- **Right Graph: Full-WFH vs. Partial-WFH**
  - Since p-values (0.5090) is greater than 0.1, failed to reject H0
  - But the 95% confidence intervals for both comparisons exclude 0, this suggests that there may be a meaningful difference in burnout scores between Full-WFH vs. Partial-WFH.
  - **Interpretation**:
    - Full-WFH employees may experience higher burnout levels than Partial-WFH employees, potentially due to isolation, lack of social interaction, or challenges in separating work from personal life.

SOCIAL CONNECTIONS AND WELL-BEING: EXPLORING HOW INTERACTION FREQUENCY AFFECTS MENTAL HEALTH

- **Research Question:** How does the frequency of social interactions with family and friends correlate with individuals' mental health and overall well-being?
- **Motivation and Value:** Loneliness, Overwhelming, Anxiety, Awareness
- **Independent Variable**
  - **Frequency of Social Interactions**: This variable will be measured using survey responses which will show us how often individuals interact with family and friends, categorized in the following ways:
    - Daily
    - Weekly
    - Monthly
    - Rarely
- **Dependent Variable**:
  - **Mental Health Score**: This composition score will be derived from the survey questions which will include indicators of anxiety, depression, and overall psychological well-being. Higher scores will indicate better mental health.
- **Control Variable**:
  - **Age**: The age of the users who answered the survey will also be taken into account. We can conclude differences in social engagement and mental health across various age groups via this method.

Visualization





- The first histogram:
  - distribution of social interaction frequencies (encoded as Low=0, Moderate=1, High=2).
- The second histogram:
  - approximate distribution of well-being scores.
- The correlation coefficient is 0.45 with a p-value < 0.001,
  - Moderate positive relationship between social interaction frequency and well-being scores.

In the second histogram, we can notice a smoothed kernel density estimate (KDE) giving an approximate probability density function of the well-being scores.

Summary:

- most reported moderate interaction.
- most reported average well-being, symmetric distribution throughout.

ANALYSIS METHOD - LINEAR REGRESSION

Purpose:

- Models the relationship between an independent variable (predictor) and a dependent variable (outcome) using a straight line.
- Quantifies the strength and direction of the relationship

Key Equation: $y = \beta_0 + \beta_1 x + \varepsilon$

Assumptions:

- Linear relationship between variables.
- Independent observations.
- Equal variance of residuals (homoscedasticity).
- Residuals are normally distributed.

RESULTS

The majority of participants fall into the Moderate interaction frequency category, suggesting that most individuals engage in a middle ground of social activity—neither too little nor too much.
The smaller counts in the Low and High categories could indicate that extremes of social interaction are less common in the population surveyed.
This distribution implies that any trends or correlations we observe might be most influenced by the Moderate interaction group, as it dominates the dataset.

The well-being scores show a roughly symmetric and bell-shaped distribution, suggesting the data is approximately normally distributed.
Most individuals report average well-being, with fewer participants reporting very high or very low scores. This pattern is common in well-being surveys, where extreme responses are less frequent.

LIMITATION

Research 1: Body Image and Gender: Exploring Self-Perception and Societal Pressures

- Do men and women differ significantly in body self-image perceptions, specifically in height dissatisfaction and fatness evaluation scores:
- Data limitations:
  - Gender was analyzed as binary which non-binary or gender diverse people were not included
  - The use of self-reported data which can be inaccurate due to issues such as overreporting or underreporting.
- Methodological Limitations:
  - The cross-sectional study can only provide a correlation rather than a causal relationship
  - Some potential confounding variables including age, cultural background, and socioeconomic status were not controlled for.

LIMITATION

Research 2: Hybrid, Remote, or In-Office: How Work Settings Influence Employee Burnout

- Does transitioning to a work-from-home setting during the pandemic significantly affect reported burnout levels compared to those who did not transition?
- Data limitations:
  - The levels of burnout may also be affected by other factors which are not directly related to work arrangements like caregiving responsibilities or stress during the pandemic.
- Methodological Limitations:
  - The absence of longitudinal data makes it challenging to track burnout rates over different periods
  - The above-listed job types or roles may act as confounding variables, this may lead to distorting of the results that have been obtained

LIMITATION

Research 3: Social Connections and Well-Being: Exploring How Interaction Frequency Affects Mental Health

- How does the frequency of social interactions with family and friends correlate with individuals' mental health and overall well-being?
- Data limitations:
  - This type of data, social interactions and mental health, may be unreliable since they are self-reported and may be influenced by biases.
  - The frequency of the social interactions, however, is not the quality and the quality of the interactions may be more important than the frequency.
- Methodological limitations:
  - Correlation does not equal causation; it is possible that better mental health results in more social interactions as opposed to the other way around.
  - Other factors that can affect mental health such as financial problems, physical well-being were not included in the research.

CONCLUSION

1. **Gender and Body Self-Image Perceptions**
   - Females consistently reported higher dissatisfaction in both metrics compared to males, suggesting that societal expectations disproportionately burden women.
   - These results underline the need for societal and policy-level interventions to mitigate gendered mental health disparities and promote body positivity across demographics.
2. **Work-from-Home (WFH) Settings and Employee Burnout**
   - Partial WFH arrangements emerged as the most sustainable model, with the lowest burnout levels, highlighting the benefits of flexibility.These insights can guide organizations toward designing balanced hybrid work models that optimize employee well-being and productivity.
3. **Social Interactions and Mental Well-Being**
   - Moderate interaction levels were most common and significantly associated with better well-being, indicating a "sweet spot" for social engagement.
   - These findings suggest targeted community interventions to reduce loneliness and enhance social connectivity.

References/Acknowledgements

- **Acknowledgements**
  - We would like to extend our sincere gratitude to the following individuals for their support and contributions to this project:
    - Dr. Kiffer Card and Christine Ovcaric
    - Prof. Scott Schwartz
    - TA
    - The Canadian Alliance for Social Connection and Health (CASCH) and GenWell
- **References**
  - Canadian Social Connection Survey (CSCS) Data provided by GenWell and CASCH.

THANK YOU