Happiness and Self-Esteem Among PSY100 Students

657 Students, **472** Females, and **187** Males were asked about their overall well-being in terms of happiness and self-esteem. This infographic highlights the distribution of their scores, explores the connection between happiness and self-esteem, and provides key insights into their emotional and mental health.
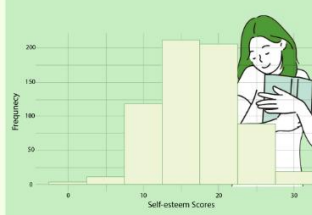
50% of Students' happiness scores are higher than the average

There is an equal feeling of a low level of happiness and high level of happiness among the population.

50% of Students' self-esteem scores are higher than the average

There is an equal feeling of a low level of self-esteem and high level of self-esteem among the population.

Happiness and Self-Esteem Is Not Gendered

Both self-identifying male and female students report similar happiness and self-esteem scores. Consistent patterns can be observed across both groups, and the population in general.

Female Averages

22 Happiness
17 Self-Esteem

Male Averages

22 Happiness
19 Self-Esteem

Greater Self-Esteem Results In Greater Happiness

This reveals a _positive trend_, students with higher self-esteem tend to report greater happiness. This connection highlights the powerful role self-esteem plays in fostering a happier outlook

Happiness and self-esteem are positively connected, reinforcing each other. Students with higher happiness often experience higher self-esteem, underscoring the importance of fostering both for overall well-being.

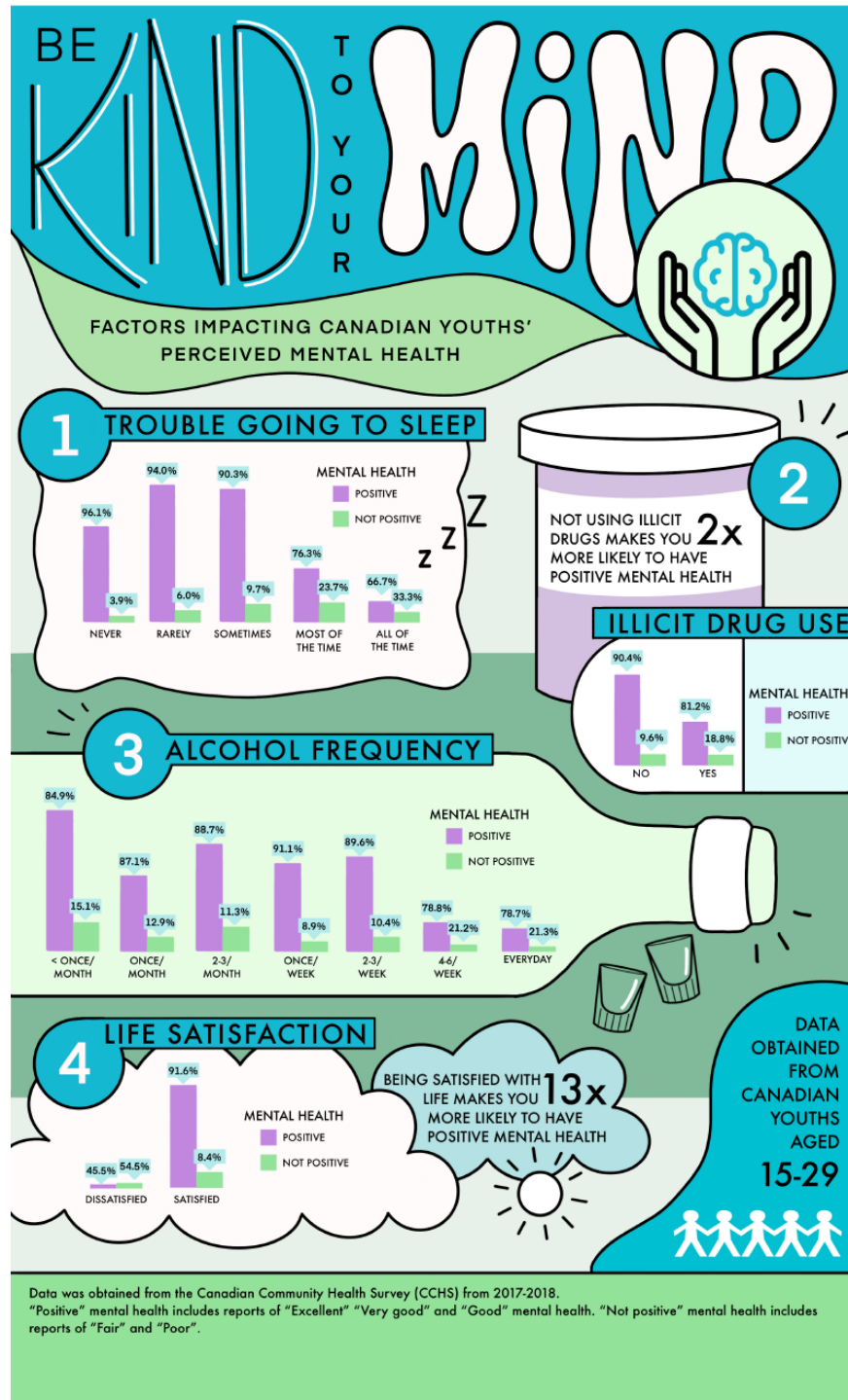# BE KIND TO YOUR MIND

FACTORS IMPACTING CANADIAN YOUTHS' PERCEIVED MENTAL HEALTH

1 TROUBLE GOING TO SLEEP

MENTAL HEALTH
- POSITIVE
- NOT POSITIVE

	NEVER	RARELY	SOMETIMES	MOST OF THE TIME	ALL OF THE TIME
Positive	96.1%	94.0%	90.3%	76.3%	66.7%
Not Positive	3.9%	6.0%	9.7%	23.7%	33.3%

2

NOT USING ILLICIT DRUGS MAKES YOU **2x** MORE LIKELY TO HAVE POSITIVE MENTAL HEALTH

ILLICIT DRUG USE

MENTAL HEALTH
- POSITIVE
- NOT POSITIVE

	NO	YES
Positive	90.4%	81.2%
Not Positive	9.6%	18.8%

3 ALCOHOL FREQUENCY

MENTAL HEALTH
- POSITIVE
- NOT POSITIVE

	< ONCE/ MONTH	ONCE/ MONTH	2-3/ MONTH	ONCE/ WEEK	2-3/ WEEK	4-6/ WEEK	EVERYDAY
Positive	84.9%	87.1%	88.7%	91.1%	89.6%	78.8%	78.7%
Not Positive	15.1%	12.9%	11.3%	8.9%	10.4%	21.2%	21.3%

4 LIFE SATISFACTION

MENTAL HEALTH
- POSITIVE
- NOT POSITIVE

	DISSATISFIED	SATISFIED
Positive	45.5%	91.6%
Not Positive	54.5%	8.4%

BEING SATISFIED WITH LIFE MAKES YOU **13x** MORE LIKELY TO HAVE POSITIVE MENTAL HEALTH

DATA OBTAINED FROM CANADIAN YOUTHS AGED 15-29

Data was obtained from the Canadian Community Health Survey (CCHS) from 2017-2018.
"Positive" mental health includes reports of "Excellent" "Very good" and "Good" mental health. "Not positive" mental health includes reports of "Fair" and "Poor".

What's Influencing Youth Mental Health in Canada?

An Analysis on Alcohol & Drug Use, Life Satisfaction, & Social Activity Engagement

PERCEIVED MENTAL HEALTH

Between 2017-2018 over 4,500 individuals aged 15-29 completed the CCHS assessing their perception of mental health alongside additional life variables

12.7%
of Canadian Youth Report having Negative self-perceived mental health

Key Factors found to have contributed to negative self-perceptions of mental health:

- **Alcohol & Drug Use**
- **One's engagement with social activity**
- **One's satisfaction with their life**

Someone who drinks alcohol 4+ times a week is **2x More likely** to have negatively perceived mental health than someone who drinks 3x a week or less
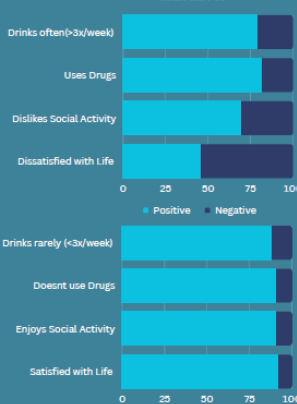
while

Individuals who admitted to using illicit drugs were **2.17x More likely** to have negatively perceived mental health than individuals who do not

Individuals who enjoy social activity are **4.18x** more likely to have a positively perceived mental health than an individual who doesn't

REPORTING POSITIVE V.S NEGATIVE MENTAL HEALTH

% OF

Drinks often(>3x/week)
Uses Drugs
Dislikes Social Activity
Dissatisfied with Life

0 25 50 75 100

■ Positive ■ Negative

Drinks rarely (<3x/week)
Doesnt use Drugs
Enjoys Social Activity
Satisfied with Life

0 25 50 75 100

Individuals who are satisfied with their life are **13.15x** more likely to have a positive perception of their own mental health

Source: Canadian Community Health Survey (CCHS) 2017-2018

Education, Income, & Health Expectancy

Disparity of health expectancy in Canada is increasing

Statistics Canada has found that between 1996 and 2011 disparity in Health Expectancy, amount of years spent in good health, have increased across Education and Income levels

Absolute Change over time

Across all levels of education or income all Health Expectancy has increased

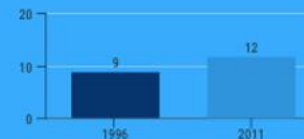**+1 years**

Education within Income disparities

% of life spend in good health

High Education & High Income	91
Low Education & Low income	75

Those with the highest education and income can live up to 16% more of their life in good health when compared to the lowest in education and income
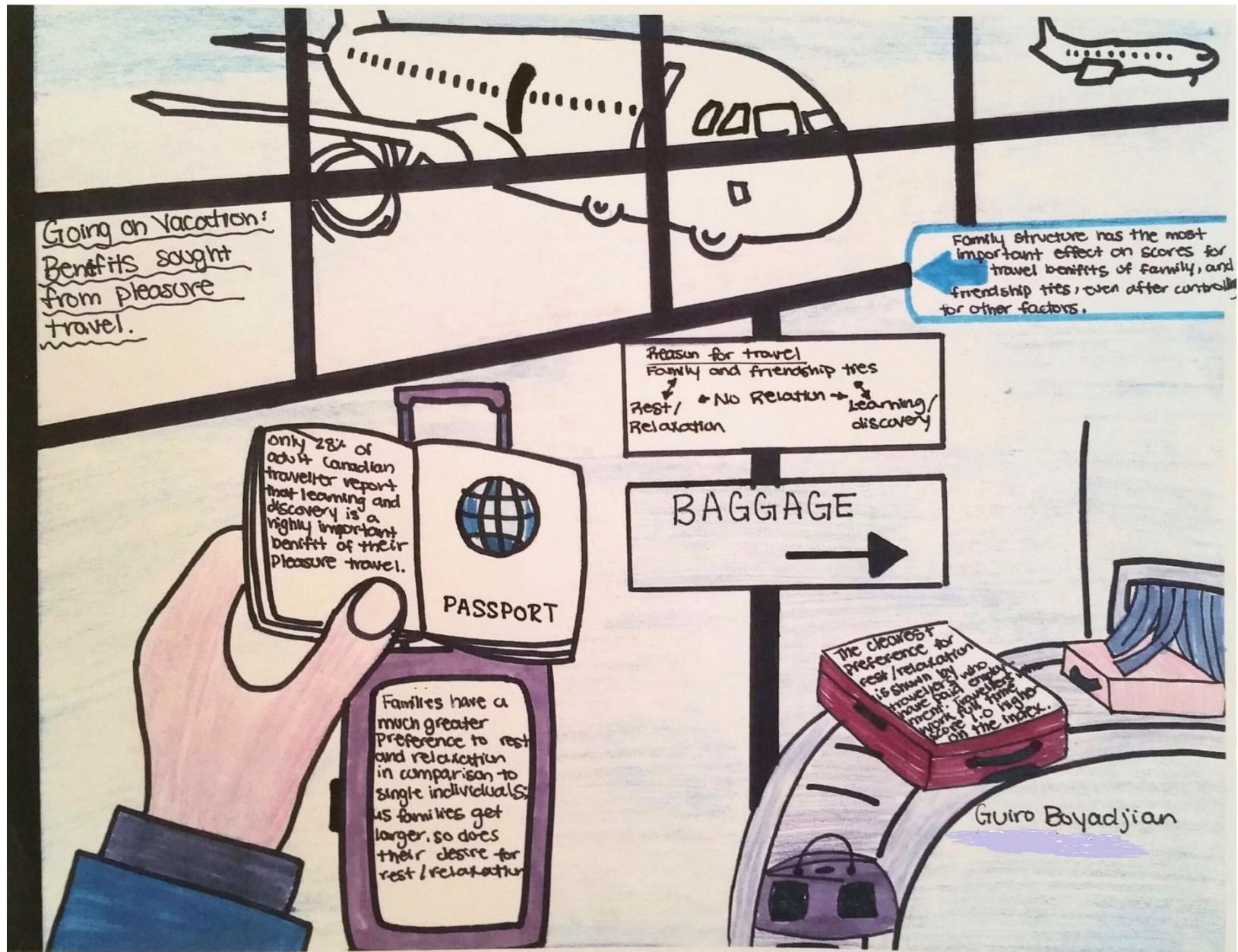
Changes in Disparities over time

The benefit of increased healthcare quality disproportionately gone to high educated + high-income individuals. The health expectancy difference between the two groups has grown by 3 years since 1996

1996	2011
9	12

Going on Vacation: Benefits sought from pleasure travel.

Family structure has the most important effect on scores for travel benifits of family, and friendship ties, even after controlling for other factors.

Reason for travel
Family and friendship ties
Rest/Relaxation ← No Relation → Learning/discovery

BAGGAGE →

only 28% of adult Canadian traveller report that learning and discovery is a highly important benifit of their pleasure travel.

PASSPORT

Families have a much greater preference to rest and relaxation in comparison to single individuals; as families get larger, so does their desire for rest/relaxation

The clearest preference for rest/relaxation is shown by travellers who have paid more for their flight, who find these travellers who score 1.0 higher on the index.

Guiro Boyadjian

2018 DATA

LIFE SATISFACTION

36 OECD Countries Residuals Sample Size

0.1 IQR Boxplot of Differences

0.98 R Correlation Coefficient

Statistics
100

0.16 Standard Deviation Estimated Error

95% Accountability Variability in Max.

0.8 Median Boxplot of Differences

Irabelle

A Nominal War

The purpose of this study is to gather various information about OECD countries and partners in order to promote policies that aims to improve the economic and social well-being of people around the world so lets not make this about males and females.

With every additional 1 life satisfaction score increase in females, the male life satisfaction score is estimated to increase by 0.97, on average.

Women - 1, Men - 2

Life Satisfaction_Male = 0.16167357 + 0.96895293 Life Satisfaction_Female

The differences boxplot is more useful for learning about gender differences in the participating OECD countries.

The distribution of scores in life satisfaction among both females and males are skewed left.

About 50% of the females in the OECD countries have life satisfaction scores between 6 and 7.35. While 50% of males in the OECD countries have life satisfaction scores between 5.95 and 7.2.

Italy Finland Korea

SD

"Somewhat unusual threshold"

Q: Are you somewhat unusual?

0.32

A: I'll leave it up to determine what's mean. After all its all about being "normal"

7

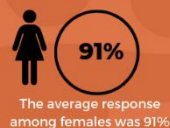# PERCEIVED SOCIAL NETWORK SUPPORT

A comparison between males and females respondents based on data collected in 2018 from 36 OECD countries

"If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?"

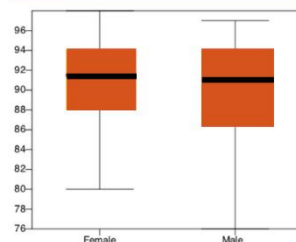Here's how the randomly selected males and females aged 15 years and older responded:

FEMALES

91%

The average response among females was 91%

MALES

90%

The average response among males was 90%

About 91% of females and 90% of males believe that they know someone they could rely on in time of need.

With the median perceived social support percentage for the females being slightly higher (91.50%) than males (91%), it is safe to state that 50% of the OECD countries have a perceived social support percentage between about 91% and 98% for males and females

Is there a difference between the population mean perceived social network percentage between males and females?

Hypotheses:

$H_o: \mu_d = 0$ The null hypothesis is that there is no difference between the true female and male perceived social network support percentage

$H_a: \mu_d \neq 0$ The alternative hypothesis is that there is a difference between the true female and male perceived social network support percentage
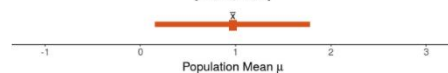
T statistic

2.54

P-value

0.016

Reject null

0.016 > 0.05

we can conclude that a difference exists between the population mean female and male perceived social network percentage.

95% Confidence Interval
[0.1918, 1.748]

Population Mean μ

We are 95% confident that the true population mean difference of perceived social network support percentage between males and females is between 0.19 and 1.75.

SOCIAL NETWORK SUPPORT IN THE 36 OECD COUNTRIES (BASED ON 2018 DATA)

PREPARED BY BY KAROLINA VASEVA [1002797011]

DO YOU HAVE FRIENDS OR RELATIVES THAT YOU CAN RELY ON IF YOU'RE EVER IN TROUBLE?

89%
OF PEOPLE STATED THAT THEY KNOW SOMEONE THEY COULD RELY ON IN TIME OF NEED, ACROSS 36 OECD COUNTRIES.

90% OF WOMEN BELIEVE THEY HAVE THIS KIND OF SOCIAL SUPPORT IN COMPARISON TO 88% FOR MEN.

THE OECD ANALYZED AND COLLECTED DATA FOR "BETTER LIFE INDEX" (BLI), WHICH WAS PUBLISHED IN 2019 BUT COLLECTED IN 2018 UNDER QUANTITAVE VARIABLE "SOCIAL NETWORK SUPPORT". VARIABLES OF INTEREST COLLECTED:

- PERCENTAGE OF PEOPLE (15 YEARS OF AGE AND OLDER) HAVING SOCIAL NETWORK SUPPORT FROM 36 OECD COUNRIES IN 2018

- GENDER OF THE RESPONDENTS IDENTIFIED AS MALE, FEMALE

● MEN ● WOMEN

SOME OF THE ISSUES COUNTRIES AND SOCIETY CAN FACE WITH LOW SOCIAL NETWORK SUPPORT:

- LIMITED ECONOMIC OPPORTUNITIES

- A LACK OF CONTACT WITH OTHERS

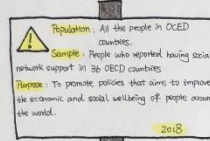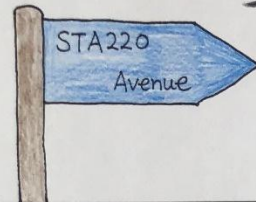- FEELINGS OF ISOLATION -> FAMILY BREAKDOWN, THE LOSS OF A JOB, ILLNESS OR FINANCIAL DIFFICULTIES

OFFER HELP FOR THOSE YOU CARE ABOUT

CHECK OUT WWW.OECDBETTERLIFEINDEX.ORG FOR MORE INFORMATION
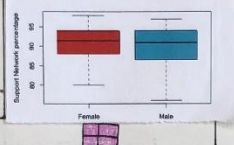
City of Statistics

Created by — Rui Xiang

— Yanzhen Liu

STA220 Avenue

⚠ Population: All the people in OCED countries.
Sample: People who reported having social network support in 36 OECD countries
Purpose: To promote policies that aims to improve the economic and social wellbeing of people around the world.
2018

STOP

HOTEL

linear regression line:
$\hat{y} = -9.648725 + 1.095699X$

The line tells us that the average of the % of males perceived social network support we would expect for a given % of females perceived social network support.

- Both the distributions of males and females percentage of perceived social network support are observed to be [...]
- The two distributions have similar centers.
- The median % of female social network support is 91.5% ; the median % of male social network support is 91.0%.
- The mean % of female social network support is 91.67% ; the mean % of [...] male social network support is 89.69%.
- The two distributions have different spread.
- The distribution of female % of social network support range from 80% to 98% with IQR of 8%.
- The distribution of male % of social network support range from 78% to 97%, with IQR of 7.25%.
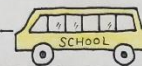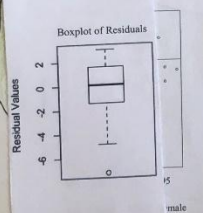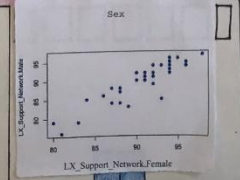
Side by Side Boxplot School

The boxplot of Support Network percentage by Sex

Support Network percentage

Female   Male

plots of residuals Park

Residuals vs % Female Supported Network

Boxplot of Residuals

Residual Values

Assumption of Normality East Tower

It checks whether the residual points are approximately normally distributed.

We can check by using histogram, boxplot, or qq-plot.

Assumption of Equal Variance West Tower

It checks whether residual points are evenly spread out around the zero line. In the plot, the residuals have constant variance.

Assumption of Linearity Apt.

It checks whether residual points are randomly plotted around the zero line. This plot meets this assumption.

Scatterplot Bank

Sex

LX_Support_Network.Male

LX_Support_Network.Female

There appears to be a strong positive linear association between the % of males perceived social network support and the % of females perceived social network support. This means higher % of females perceived social network support are associated with higher % of males. As the % of females perceived social network support increases, the % of males perceived social network support tends to increase. There is no outlier.

R^2 Gas Station

About 80.588% of the variance in the % of males perceived social network support is explained by [...] linear relationship with the % of females perceived social network support.

$R^2 = 0.80588$

Teen Moms and Poverty

By: Selvin Leenus
(1006617859)

Poverty has been seen as both a cause and consequence of teen pregnancy. In the majority of the states in the United States, teen mom rates have been recorded to be almost equal to the state's poverty rate.

Important Statistics

Poverty in America has a mean of 12.85 and standard deviation of 3.06 while the prevalence of teen moms has a mean of 10.36 and standard deviation of 2.52.

The three states with the highest poverty rates in increasing order are New Mexico, Mississippi, and Louisiana. They also have teen mom rates of 15.7, 13.7, and 17.1 respectively.

The minimum poverty rate is 7.6 at New Hampshire and the minimum teen mom rate is 6.4 at both Massachusetts and New Jersey.

Relating Teen Moms to Poverty

When looking at the incidence of teen moms and poverty in all of America, there is a correlation of 0.8454. This implies a strong positive linear correlation between the two variables, and that as poverty rates increase, the rate of teen moms also increases.

Least Squares Prediction Equation

An equation can be used to predict the teen mom rate based on the poverty rate. The y-intercept for this equation would be 1.39 and the slope of the line would be 0.70. The equation would thus be:

$$\text{Teem mom rate} = 1.39 + 0.70(\text{Poverty})$$

STA220

Rahmat Geleto

SOCIAL NETWORK SUPPORT

"If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?"
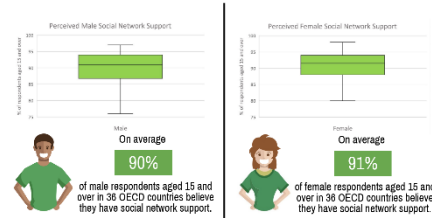
The OECD Better Life Index aims to compare **well-being** across 36 countries using internationally comparable indicators of life satisfaction.
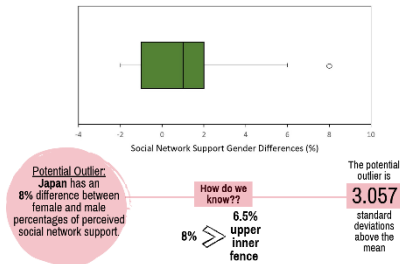
36
OECD countries

The purpose of this study was to observe the social network support differences between males and females 15 years and older in 36 OECD countries.
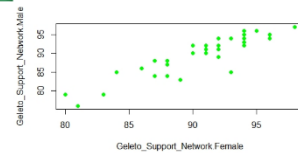
Using microdata collected from the **Gallup World Poll**, perceived social network support is based on the proportion of male and females respondents that have relatives or friends that they can count on to help them in times of need and trouble.

Perceived Male Social Network Support

Perceived Female Social Network Support

Male
On average
90%
of male respondents aged 15 and over in 36 OECD countries believe they have social network support.

Female
On average
91%
of female respondents aged 15 and over in 36 OECD countries believe they have social network support.

Differences in Social Network Support

Social Network Support Gender Differences (%)

Potential Outlier:
Japan has an **8%** difference between female and male percentages of perceived social network support.

How do we know??

6.5%
8% > upper inner fence

The potential outlier is
3.057
standard deviations above the mean

As the percentages of female's perceived social network support **increases**, the percentages of male's perceived social network tends to **increase**.

Geleto_Support_Network.Male

Geleto_Support_Network.Female

$\hat{y} = -9.648925 + 1.095699x$

The regression line tells us the average % of males perceived social network support at a given % of females perceived social network support

81%
of the variation in % of males who have network support is explained by the variation of the % of females who have network support
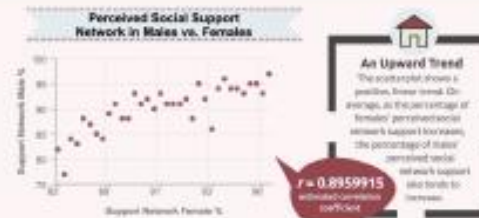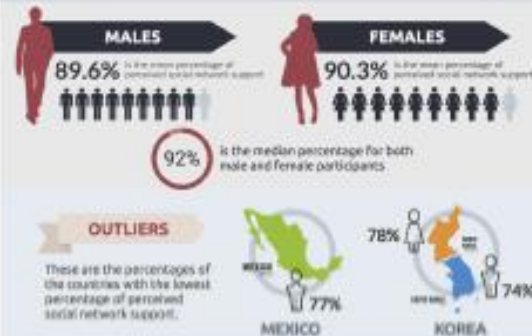
r = 0.8977098
indicates a strong postive straight-line correlation

12

STA220

Social Network Support in OECD Countries
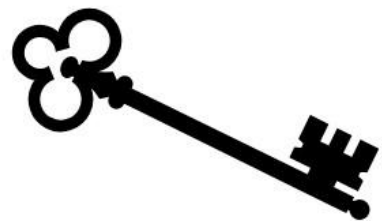
By: Veronica Chiang | 1003957211

Male vs. Female? This study will compare and contrast the differences in percentages of perceived social network support of people aged 15 and over in various countries around the world.

MALES

89.6% is the mean percentage of perceived social network support

FEMALES

90.3% is the mean percentage of perceived social network support

92% is the median percentage for both male and female participants

OUTLIERS

These are the percentages of the countries with the lowest percentage of perceived social network support.

MEXICO 77%

KOREA 78% / 74%

Perceived Social Support Network in Males vs. Females

Support Network Male %

Support Network Female %

An Upward Trend

The scatterplot shows a positive, linear trend. On average, as the percentage of females' perceived social network support increases, the percentage of males' perceived social network support also tends to increase.

r = 0.8959915 estimated correlation coefficient

The Biggest Difference

Countries in which male respondents have a "somewhat unusually" less percentage of perception of having a social network support in relation to the female respondents

6% MEXICO

USA 4%

7% JAPAN

Percentage indicates how much higher female percentage of perception of having a social network support is than the male group

IN CONCLUSION

of variation in the percentage of males' perceived social network support is explained by the linear relationship with the percentage of females' perceived social network support.

UNLOCKING KEY PREDICTORS OF POSITIVE PERCEPTION OF MENTAL HEALTH AMONG YOUTH

8.98x
9.42x
1.91x
2.14x
2.33x
2.67x
1.72x
1.74x
1.85x