RRWM Data Activity - Workflow

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Dataset

Dataset being used: Canadian Community Health Survey (CCHS) - Mental Health, 2012

Link to datset: https://abacus.library.ubc.ca/dataset.xhtml?persistentId=hdl:11272.1/AB2/2PSQXJ (https://abacus.library.ubc.ca/dataset.xhtml?persistentId=hdl:11272.1/AB2/2PSQXJ)

Dataset citation: Statistics Canada. Health Statistics Division, 2014, "Canadian Community Health Survey (CCHS) - Mental Health, 2012", https://hdl.handle.net/11272.1/AB2/2PSQXJ (https://hdl.handle.net/11272.1/AB2/2PSQXJ), Abacus Data Network, V1, UNF:6:NHaAsIbeTwjPzakM8IWR9w== [fileUNF]

Import the data

- Install package: "haven"
- Import the dataset into R

Data cleaning

- Install packages for data cleaning: "psych", "readr", "dplyr"

Extract raw variables

- Age: DHHGAGE
- Sex: DHH_SEX
- Marital status: DHHGMS
- Education: EDUDR04
- Negative social interactions: NSIDSC
- General life satisfaction: GENGSWL

Variable transformations:

- Age: Factor variable (from 0 = age group 15-19 to 13 = age 80+)
- Sex: Factor variable (0 = male, 1 = female)
- Marital status: Factor variable (0 = married, 1 = common-law, 2 = widowed, 3 = divorced/separated, 4 = single)
- Education: Factor variable (0 = < post secondary, 1 = secondary school, 2 = some post-secondary, 3 = post-secondary)
- Social strain: Continuous variable (0-12 scale)
- Satisfaction with life: Continuous variable (5 = Very satisfied, 4 = Satisfied, 3 = Neither satisfied or dissatisfied, 2 = Dissatisfied, 1 = Very dissatisfied)
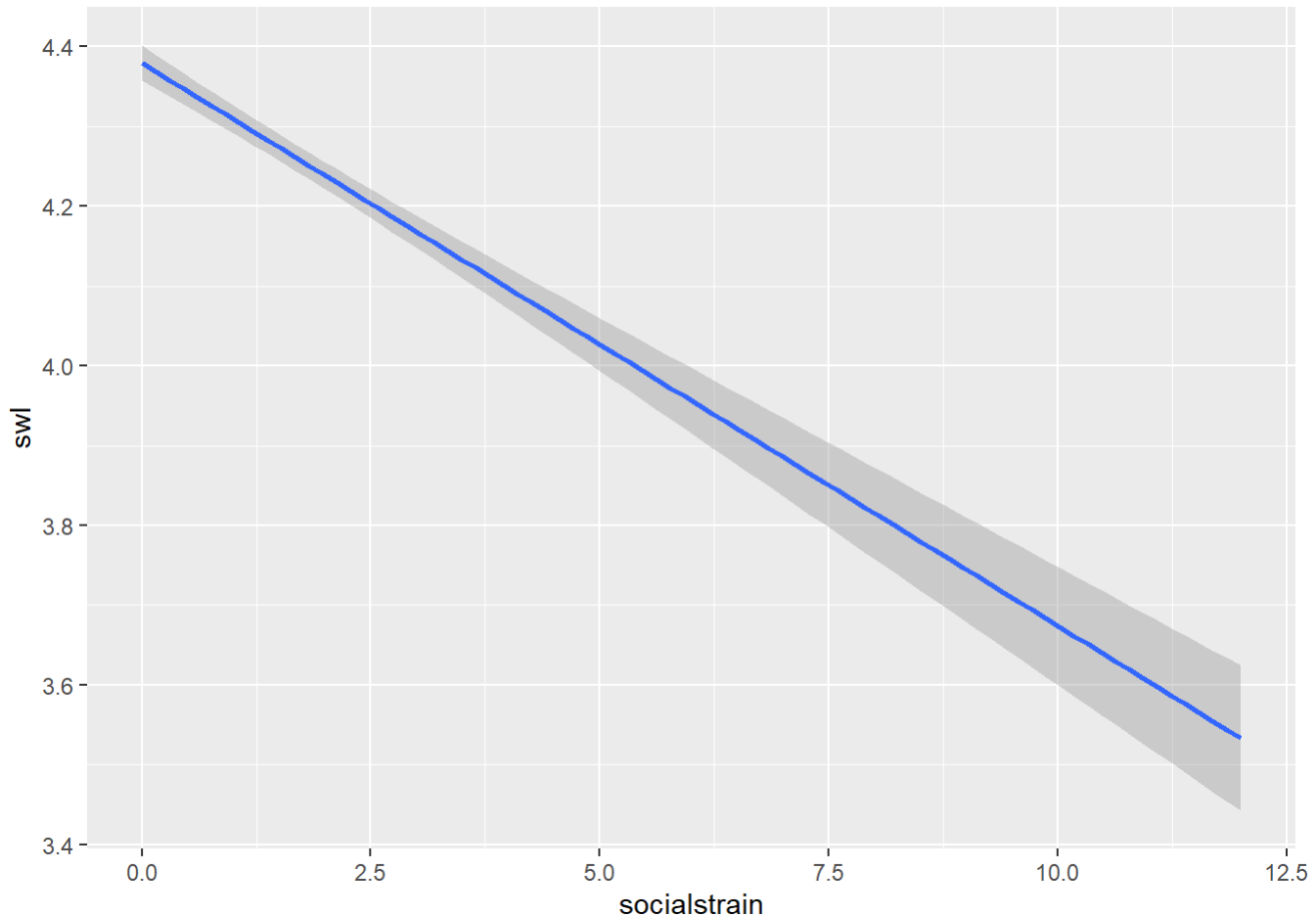
Define Analytic Sample

- Exclude participants in any age group aged <60.

Analyses

Analysis 1: Regression line

- Create a graph of the unadjusted regression with social strain (outcome variable) and satisfaction with life (exposure variable).

Analysis 2: Linear regression

- Conduct a linear regression where the outcome is satisfaction with life and the exposure is negative social interactions.
- Conduct a second linear regression where the outcome is satisfaction with life, and the exposures are: negative social interactions, age, sex, marital status, and education.
- Place these side-by-side in the same table.
- Install package: "sjPlot"

Predictors	swl			swl		
	Estimates	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	4.41	4.40 – 4.43	**<0.001**	4.35	4.30 – 4.41	**<0.001**

Neg social interactions - scale (D)	-0.07	-0.07 – -0.07	**<0.001**	-0.08	-0.09 – -0.07	**<0.001**
age_fAge 65-69				0.02	-0.03 – 0.07	0.373
age_fAge 70-74				0.05	-0.00 – 0.10	0.052
age_fAge 75-79				-0.02	-0.07 – 0.04	0.579
age_f: Age 80+				0.00	-0.05 – 0.06	0.924
sex_f: female				0.11	0.08 – 0.15	**<0.001**
marst_f: common-law				-0.07	-0.16 – 0.03	0.179
marst_f: widowed				-0.21	-0.25 – -0.16	**<0.001**
marst_f: divorced/separated				-0.25	-0.30 – -0.20	**<0.001**
marst_f: single				-0.23	-0.29 – -0.16	**<0.001**
education_f: secondary school				0.05	-0.00 – 0.10	0.062
education_f: some post-secondary				0.04	-0.05 – 0.13	0.374
education_f: post-secondary				0.12	0.08 – 0.16	**<0.001**
Observations	24723			8043		
R^2 / R^2 adjusted	0.048 / 0.048			0.058 / 0.057		