

Examining the Relationship Between Work Hours Per Week and Perception of Health

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INTRODUCTION

Level of job satisfaction and the number of hours worked per week are directly related to health. Long working hours as defined by greater than 52 hours per week for at least 10 years have been associated with a number of health conditions and lower levels of self-reported general health.

In 2016 Conway, Pompeii, and colleges retrospectively analyzed data from 2000 participants the Panel Study of Income Dynamics (1986–2011), conducted in the United States. Long working hours resulted in higher risk of self-reported poor general health (relative risk (RR) = 1.28; 95% confidence interval (CI): 1.06, 1.53). In 2017 Dirlam and Zheng analyzed data from a United States cohort starting in 1979 and lasting 14 years, found those with low job satisfaction were most likely to have the lowest self-reported health (OR = 1.61)

Hypothesis

Those with longer work hours and those with low job satisfaction will have a negative perception of health.

METHODS

Data from The National Longitudinal Study of Adolescent and Adult Health Wave IV which includes U.S. adults aged 24 to 32 was used to answer the following questions:

- Is working long hours (≥ 52 hours/week) a good predictor of having a negative perception of health?
- What other job-related factors predict a negative perception of health?
 - All assumptions of statistical analyses were met
 - Descriptive statistics were used to determine sample characteristics
 - ANOVA was used to identify differences in perception of health with the data split by gender, Bonferroni post-hoc analysis was used to identify differences
 - Chi square was used to analyze the association between job satisfaction and perception of health.
- Job satisfaction was recoded to combine “dissatisfied” and “very dissatisfied” categories. Perception of health was recoded to combine categories of “poor” and “very poor”
- Logistic regression was used to determine the odds of having poor perception of health based on work hours per week and to test the influence of income
- The variable perception of health was recoded into a dichotomous outcome variable to determine positive or negative perception of health

RESULTS

Sample Characteristics n= 6,503	Mean	Standard Deviation
Age	29.00	1.77
Income	35,045.99	44694.89
Work hours per week	52.19	14.35

Gender	%
Males	52
Females	48

Work Hours per Week	Mean	SD
Males n=160	50.99	± 14.58
Females n=165	53.36	± 14.08

Mean work hours per week of those working ≥ 10 hours per week at a paid job among males and females

The proportion of long work hours, as defined by ≥ 52 hours per week, by gender.

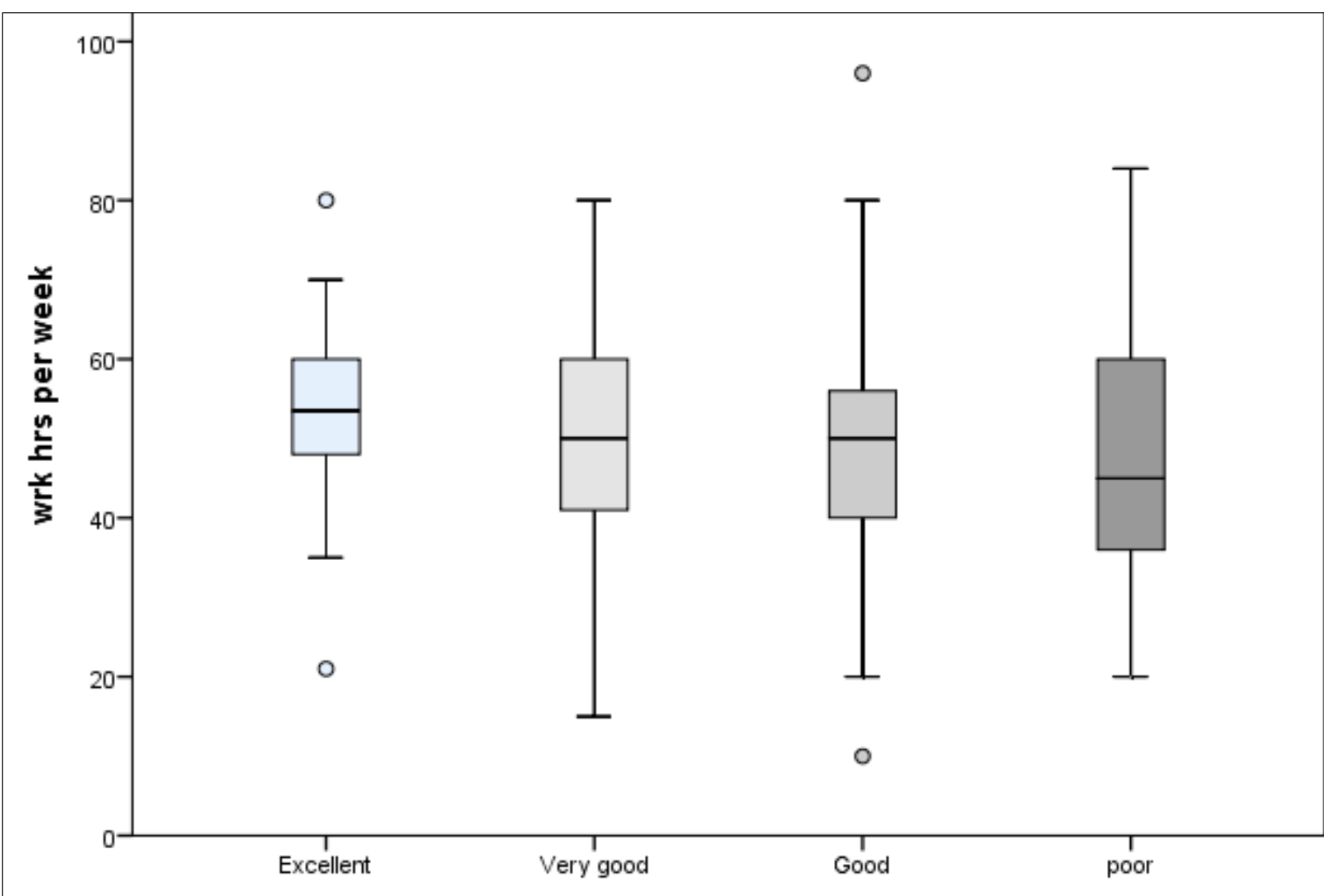
Long work hours	% Males	% Females
≤ 51 hours per week	79.6	72.6
≥ 52 hours per week	20.4	27.4

Difference in mean work hours per week by Perception of Health among Males and Females		
ANOVA Results	F value	Significance (p value)
Males	1.879	.125
Females	3.204	.025

Results are considered significant at a $p \leq .05$

A significant difference work hours per week among different levels of perception of health was found among females ($p = .025$) but not males ($p = .125$)

Mean Work Hours Per Week and Perception of Health Females



Perception of Health					
Job Satisfaction	Excellent	Very Good	Good	Poor	Total
Extremely Satisfied	304	472	337	75	1188
Satisfied	470	980	850	205	2505
Neither Satisfied or Dissatisfied	117	334	315	118	884
Dissatisfied	64	156	151	76	447
Total	955	1942	1653	474	5024

A significant association was found between perception of health and job satisfaction ($\chi^2 117.785$, $p < .0001$)

RESULTS

Results of Logistic Regression
Outcome variable = negative perception of health

Variable	β	OR	Significance (p-value)	95% CI Lower	Upper
Gender (females)	.011	1.01	.869	.884	1.157
Work hours per week (≥ 52 hrs)	.138	1.148	.479	.784	1.68
Income	-.502	.605	.001	.532	.689
Job Satisfaction (not satisfied)	.284	1.32	.001	1.14	1.54

Results are considered significant at a $p \leq .05$

The likelihood of having a negative perception of health is not significantly changed by gender ($p = .869$) or working at least 52 hours per week ($p = .479$)

As income increases the likelihood of having a negative perception of health significantly decrease ($p \leq .001$) after holding gender and long work hours constant

Those who are dissatisfied with their jobs have an increased likelihood of having a negative perception of health when gender, long work hours, and income are held constant

CONCLUSION

- The current study did not find long work hours to be a significant predictor of having a negative perception of health. The reason for this difference may be due to the age range of the sample. In previous literature it was found that those who worked long work hours for at least 10 years were at greater odds for a negative perception of health.
- Females who reported a poor perception of health had significantly lower mean work hours per week compared to those who had a good or very good perception of health. There were no significant differences for males. Despite these differences, gender was not found to be a significant predictor of perception of health when long work hours were held constant.
- Income and job satisfaction were found to be significant, job related predictors of perception of health

REFERENCES

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