Mental Well-Being

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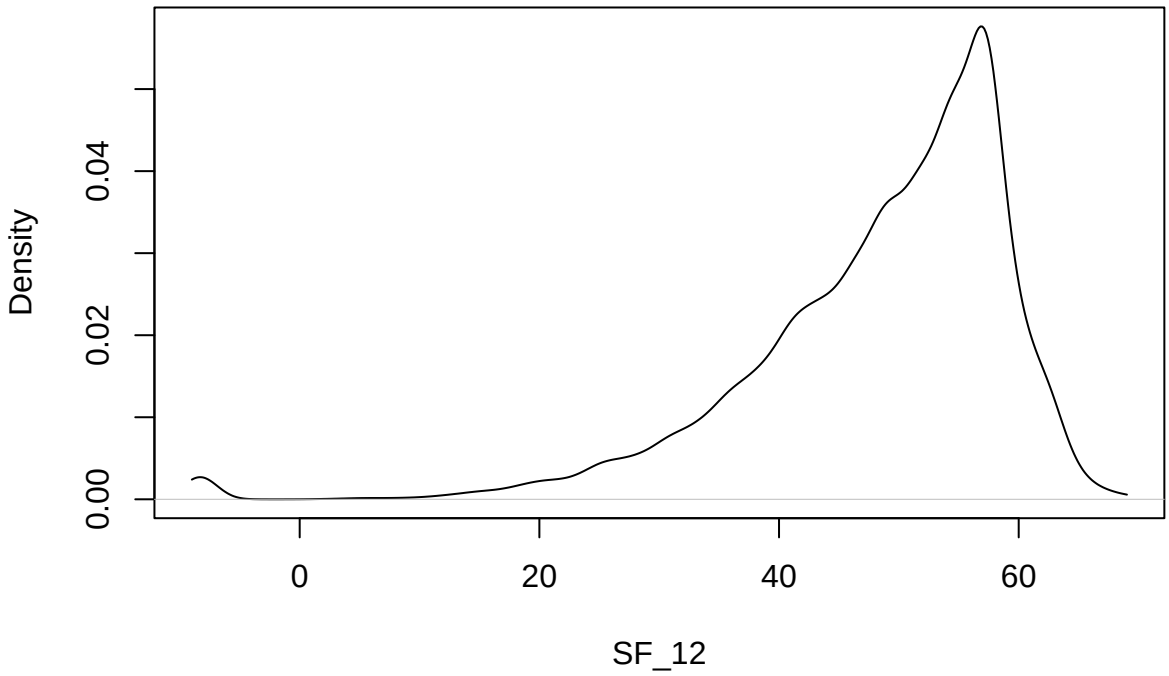
Introductory fluff. Why do we need this module? test reference (Nelson 1987).

Methods

What methods are used? Justification due to output data type. explanation of model output.

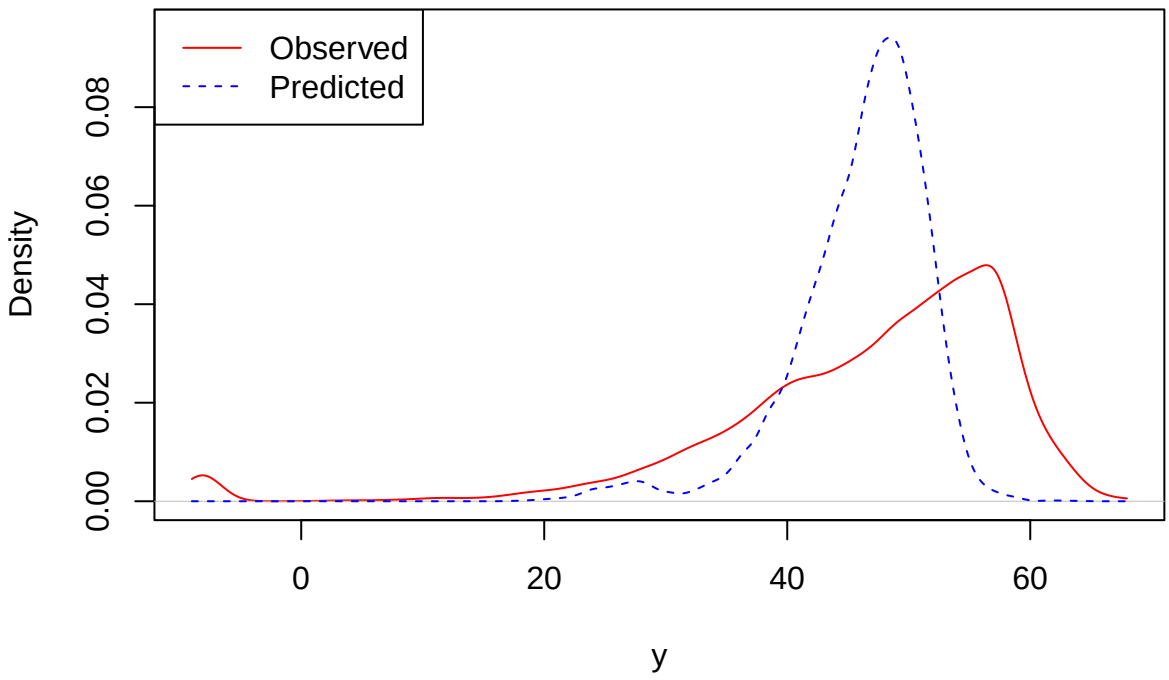


Data

What variables are included? Why is this output chosen. What explanatory variables are used and why are they chosen

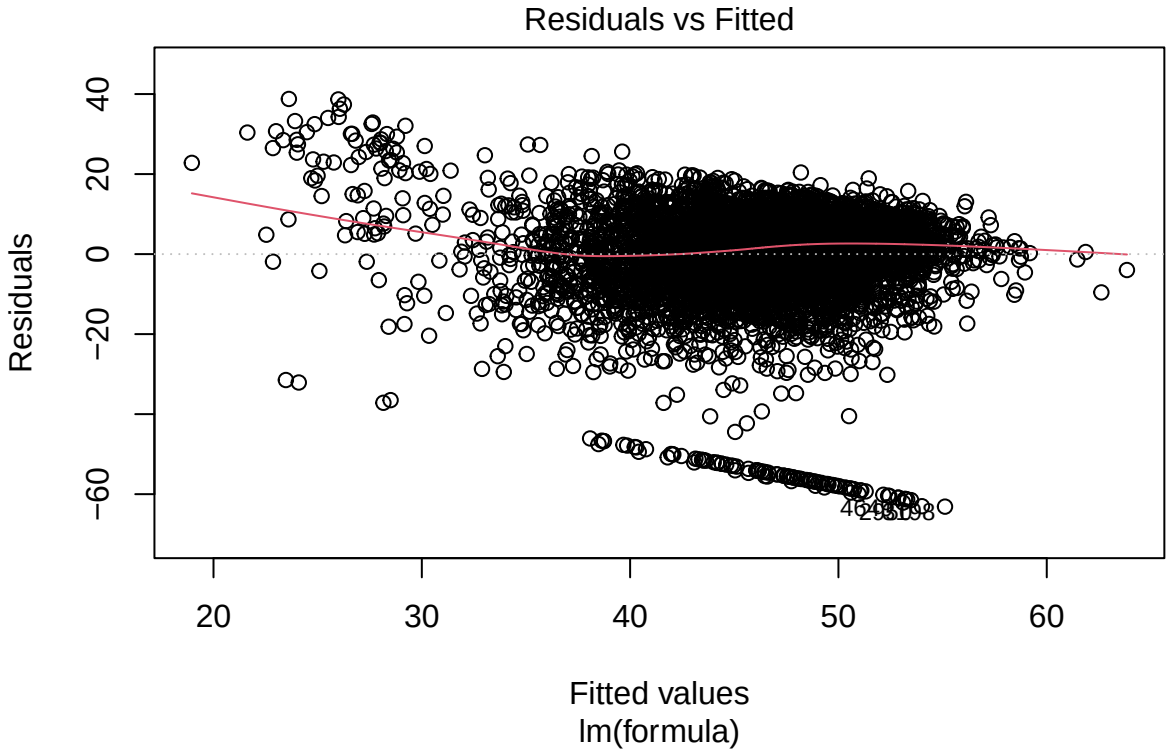
Results

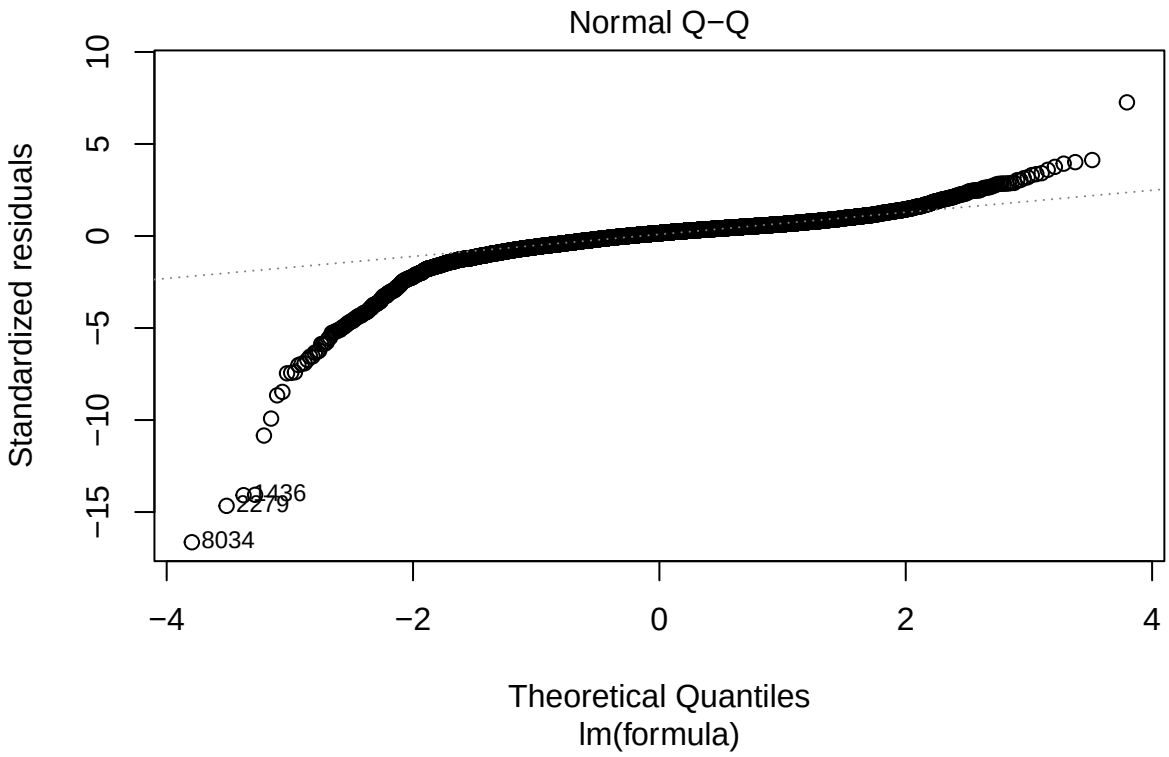
What are the results. Coefficients tables. diagnostic plots. measures of goodness of fit.

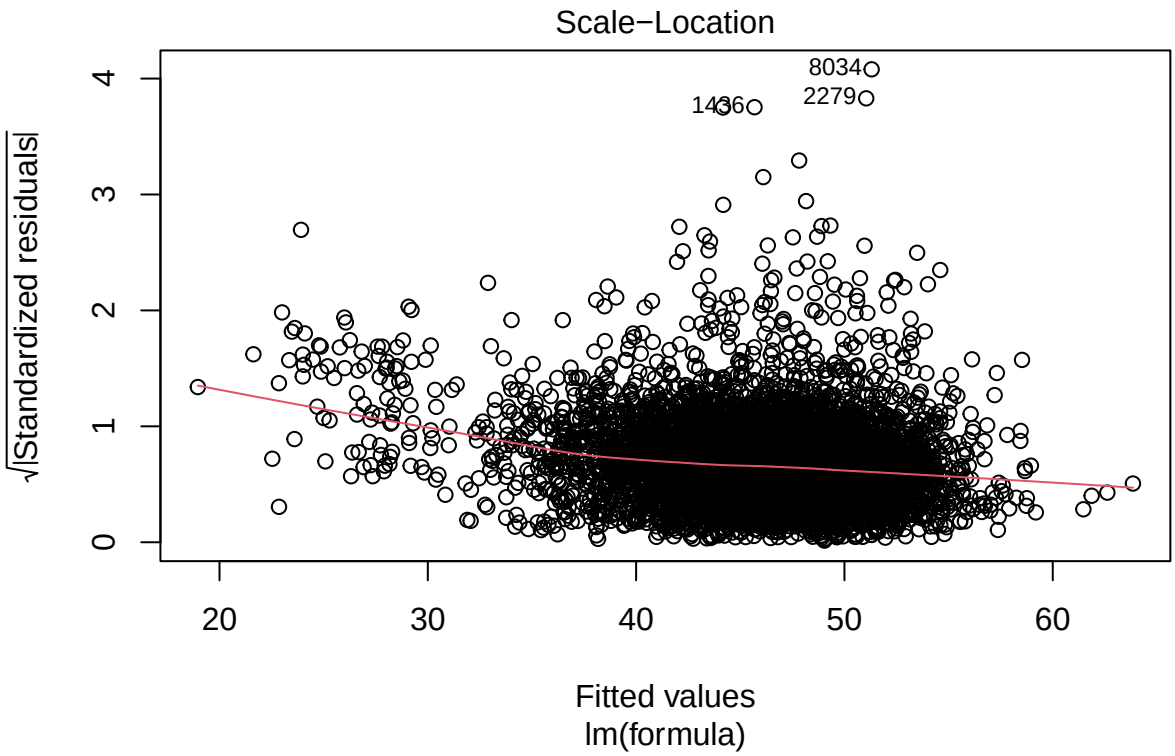


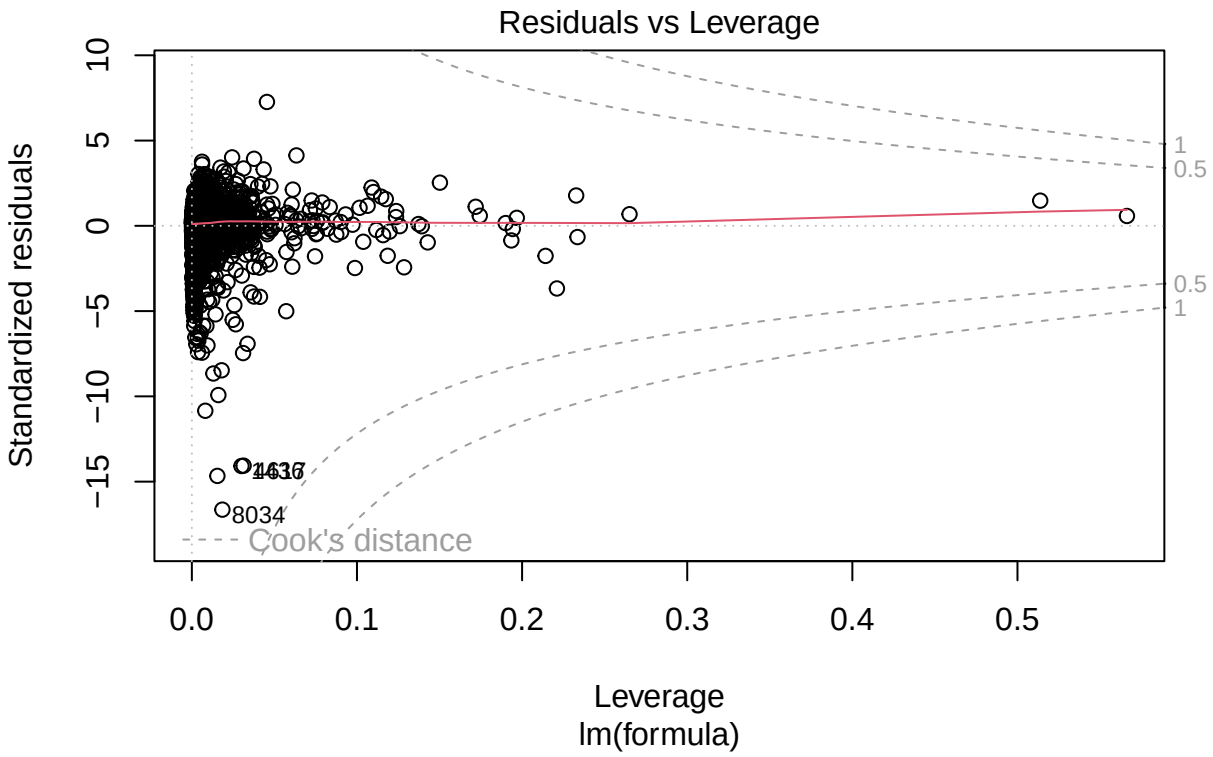

```
##
## Call:
## lm(formula = formula, data = data, weights = weight)
##
## Weighted Residuals:
##      Min       1Q   Median       3Q      Max
## -13737.9    -90.8      0.0    309.9   5913.1
##
## Coefficients:
##                                  Estimate Std. Error t value Pr(>|t|)
## (Intercept)                      35.63072    5.23669   6.804 1.10e-11 ***
## factor(sex)Male                  -0.28118    0.29974  -0.938 0.348238
## factor(ethnicity)BLA              5.58169    2.56134   2.179 0.029351 *
## factor(ethnicity)BLC              3.61935    2.86138   1.265 0.205953
## factor(ethnicity)CHI              6.41785    3.18206   2.017 0.043747 *
## factor(ethnicity)IND              6.88750    2.40089   2.869 0.004134 **
## factor(ethnicity)MIX              1.97359    2.50005   0.789 0.429894
## factor(ethnicity)OAS              1.91577    2.64188   0.725 0.468384
## factor(ethnicity)OBL             11.90801    7.60161   1.567 0.117276
## factor(ethnicity)OTH              6.88012    3.56962   1.927 0.053971 .
## factor(ethnicity)PAK              3.64350    2.56276   1.422 0.155157
## factor(ethnicity)WBI              3.82583    2.21280   1.729 0.083862 .
## factor(ethnicity)WHO              2.33346    2.27659   1.025 0.305411
## age                               0.11968    0.01056  11.337  < 2e-16 ***
## factor(education_state)1          4.96060    1.23207   4.026 5.73e-05 ***
## factor(education_state)2          0.80861    0.42361   1.909 0.056326 .
```

```
## factor(education_state)3             1.60326    0.54727   2.930 0.003406 **
## factor(education_state)5             1.35266    0.57806   2.340 0.019312 *
## factor(education_state)6            -0.09683    0.46052  -0.210 0.833478
## factor(education_state)7             1.11239    0.50708   2.194 0.028291 *
## factor(labour_state)Family Care      1.83446    5.09216   0.360 0.718671
## factor(labour_state)Maternity Leave -5.93255    1.78485  -3.324 0.000893 ***
## factor(labour_state)PT Employed     -1.35546    0.36975  -3.666 0.000248 ***
## factor(labour_state)Retired          2.82483    0.95455   2.959 0.003094 **
## factor(labour_state)Self-employed   -0.39164    1.24040  -0.316 0.752214
## factor(labour_state)Sick/Disabled    1.52369    2.67579   0.569 0.569080
## factor(labour_state)Student          2.99832    0.87780   3.416 0.000640 ***
## factor(labour_state)Unemployed       3.23898    3.54043   0.915 0.360301
## scale(hh_income)                     0.28215    0.12979   2.174 0.029743 *
## scale(SF_12)                         4.74130    0.16264  29.152  < 2e-16 ***
## factor(housing_quality)1             1.21228    4.72851   0.256 0.797668
## factor(housing_quality)2             1.49590    4.72709   0.316 0.751669
## factor(housing_quality)3            -0.74314    4.74970  -0.156 0.875675
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 833.3 on 6760 degrees of freedom
## Multiple R-squared:  0.179,  Adjusted R-squared:  0.1751
## F-statistic: 46.06 on 32 and 6760 DF,  p-value: < 2.2e-16
```




Normal Q−Q
Standardized residuals
10
5
0
−5
−10
−15
1436
2279
8034
−4
−2
0
2
4
Theoretical Quantiles
lm(formula)


Scale−Location
8034
2279
1436
√|Standardized residuals|
0
1
2
3
4
20
30
40
50
60
Fitted values
lm(formula)



References

Nelson, Edward. 1987. *Radically Elementary Probability Theory.* Princeton University Press.