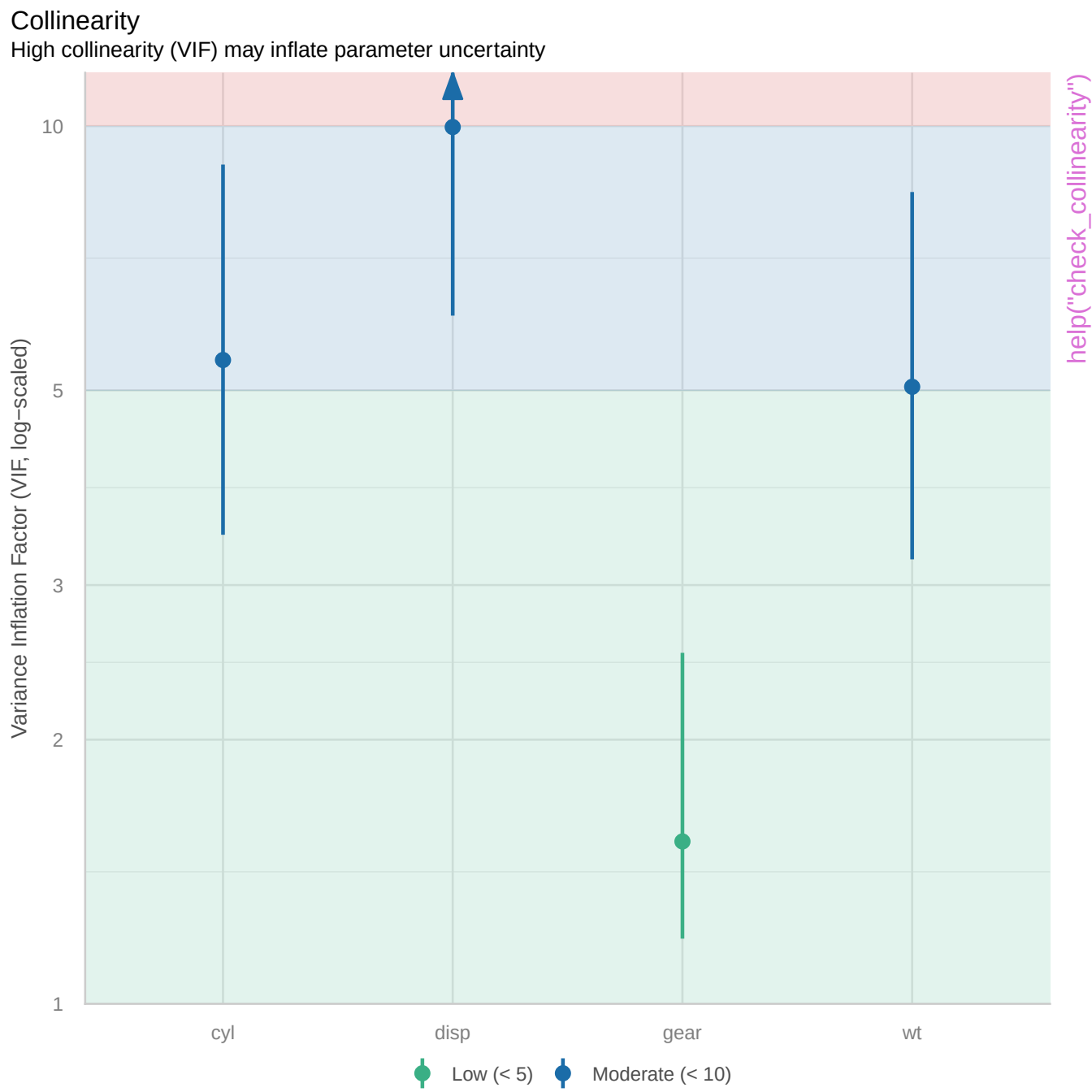
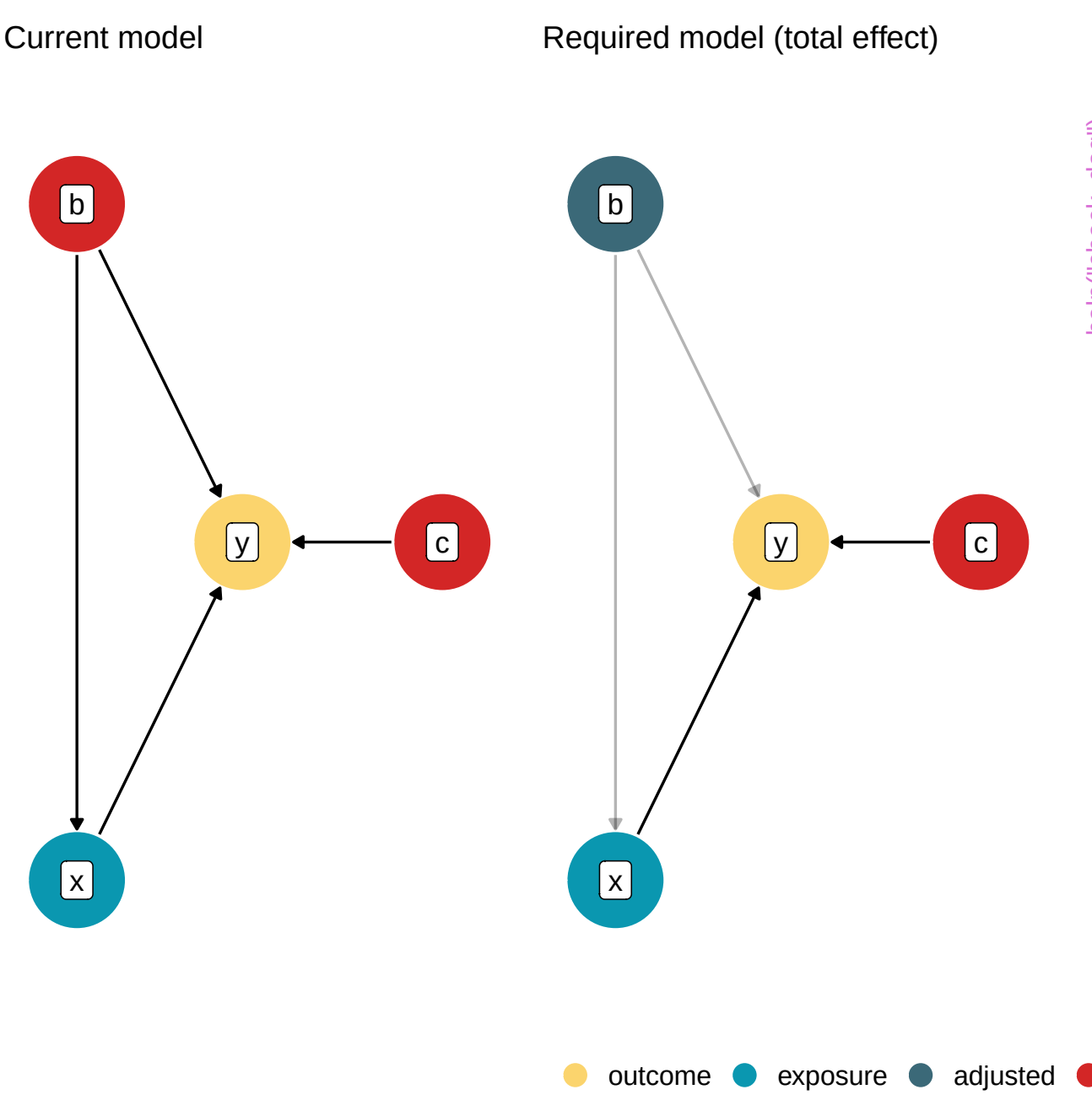
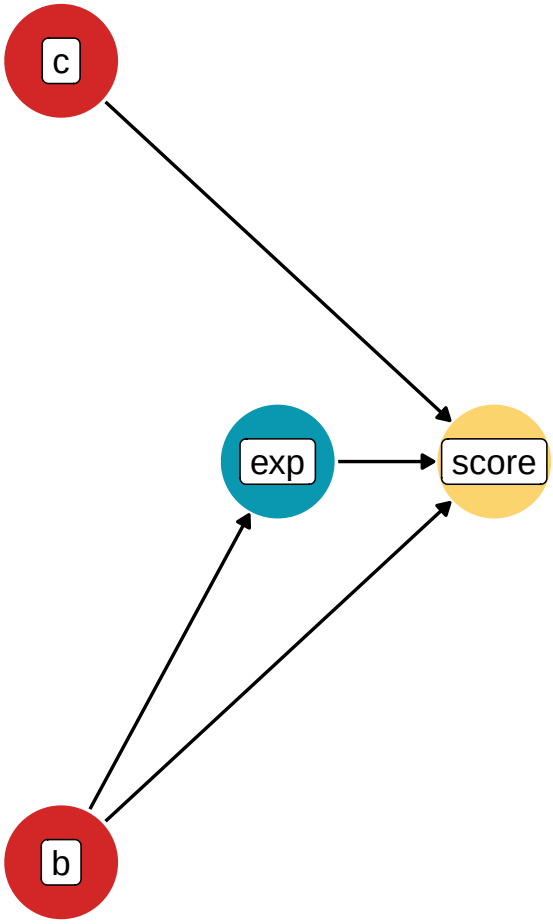
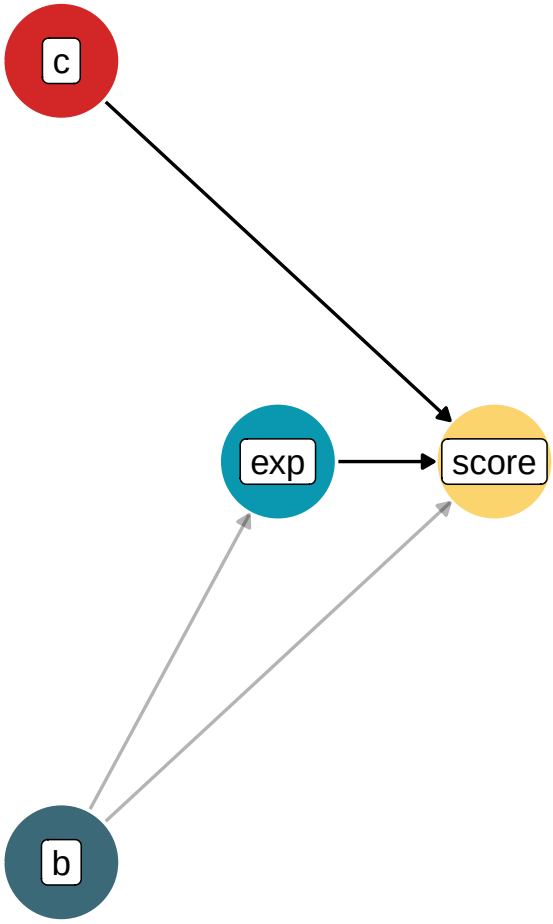

Collinearity
High collinearity (VIF) may inflate parameter uncertainty
Variance Inflation Factor (VIF, log−scaled)
10
5
3
2
1
cyl
disp
gear
wt
Low (< 5)
Moderate (< 10)
help("check_collinearity")


Current model
Required model (total effect)
b
y
c
x
b
y
c
x
help("check_dag")
outcome
exposure
adjusted

Current model



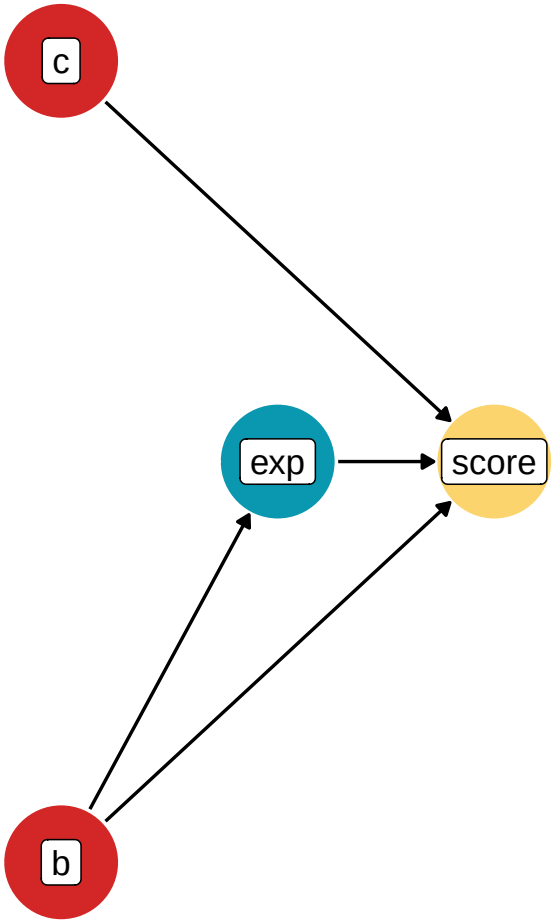
Required model (total effect)



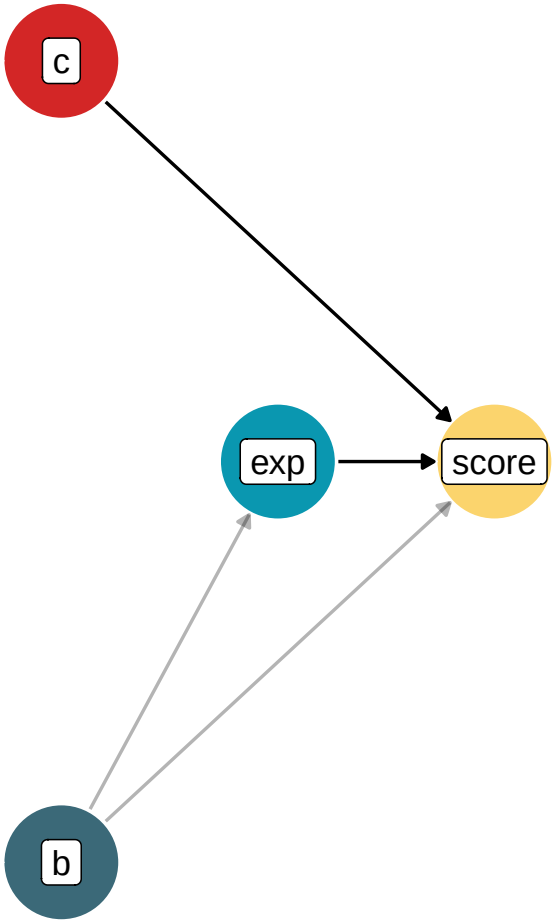
help("check_dag")

outcome exposure adjusted

Current model

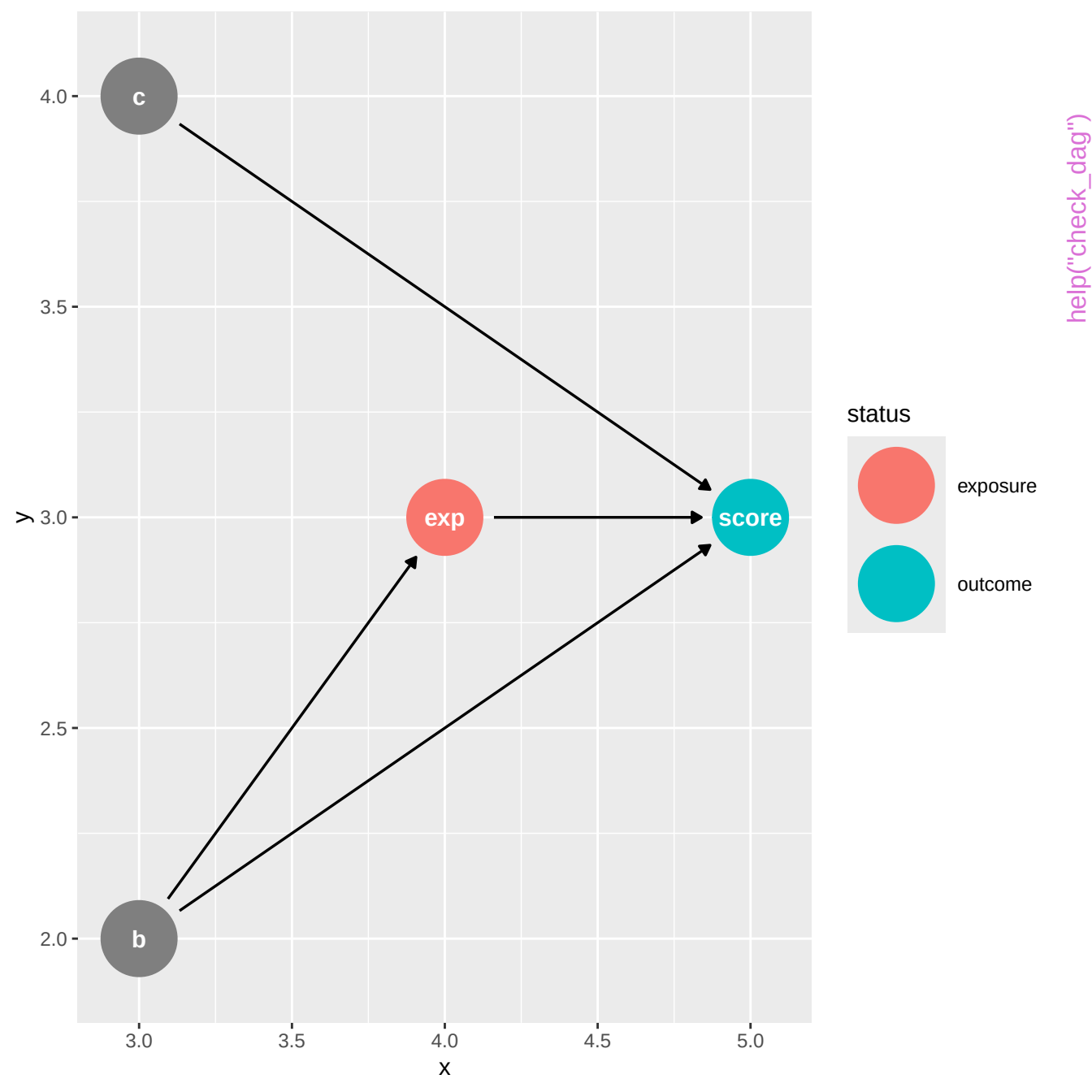


Required model (total effect)

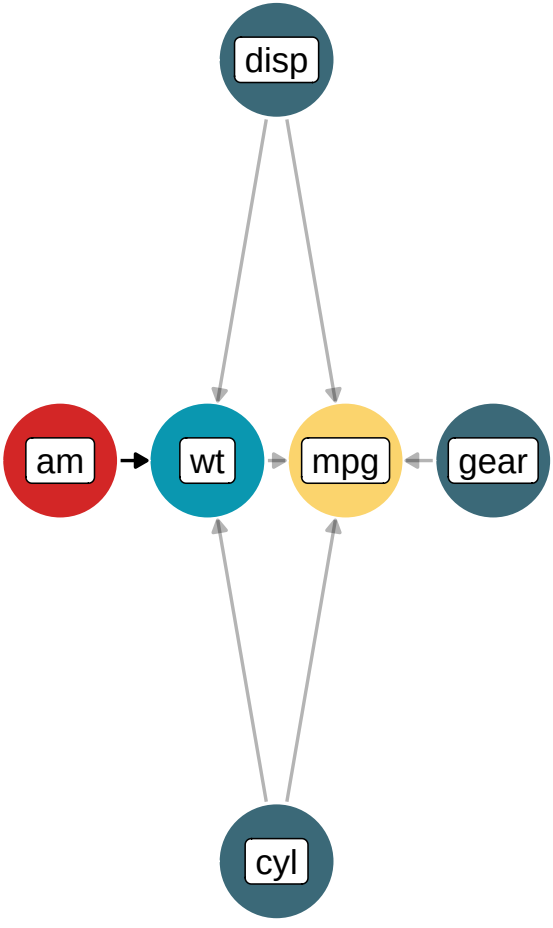


help("check_dag")

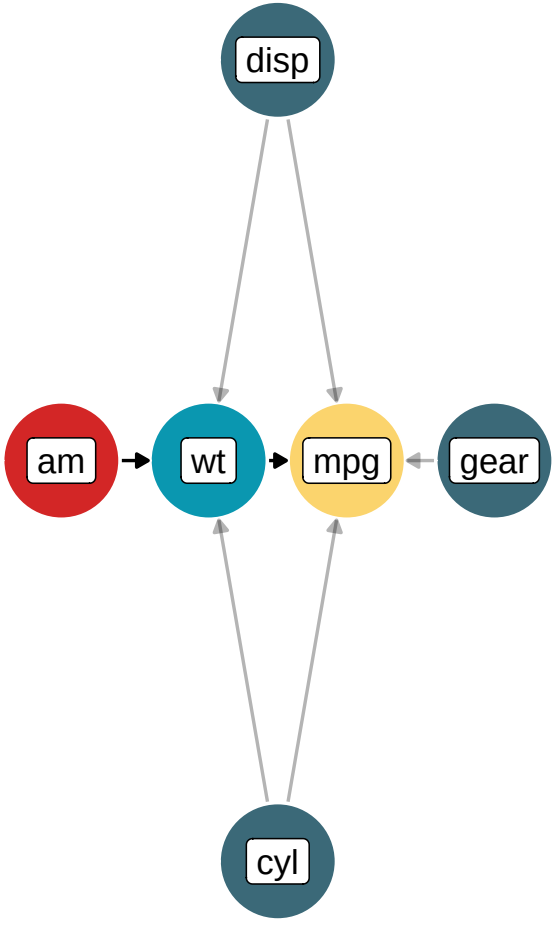
outcome exposure adjusted


c
exp
score
b
4.0
3.5
3.0
2.5
2.0
y
3.0
3.5
4.0
4.5
5.0
x
status
exposure
outcome
help("check_dag")

Current model



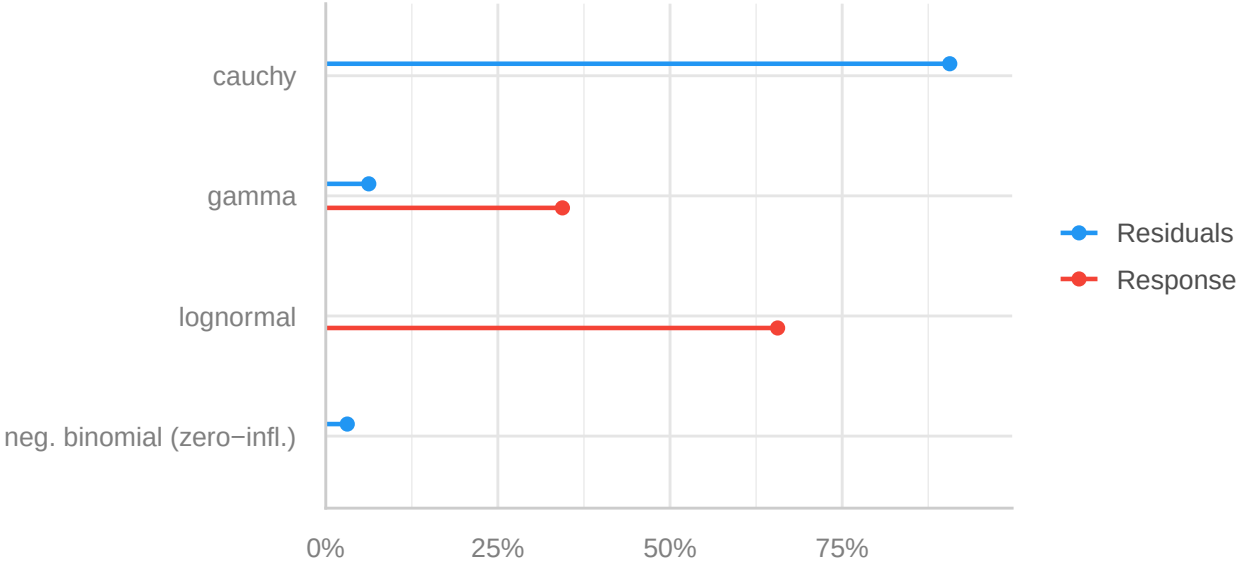
Required model (total effect)



help("check_dag")

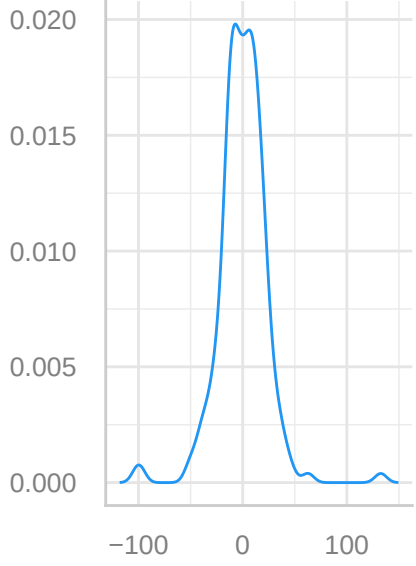
outcome exposure adjusted

Predicted Distribution of Residuals and Response

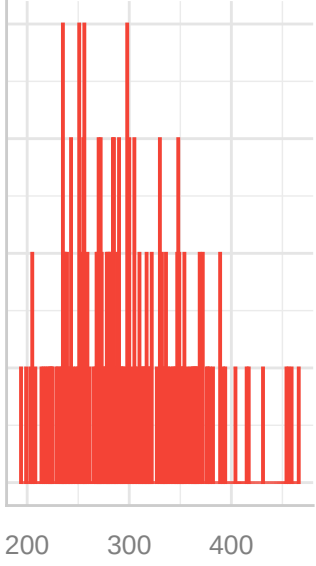


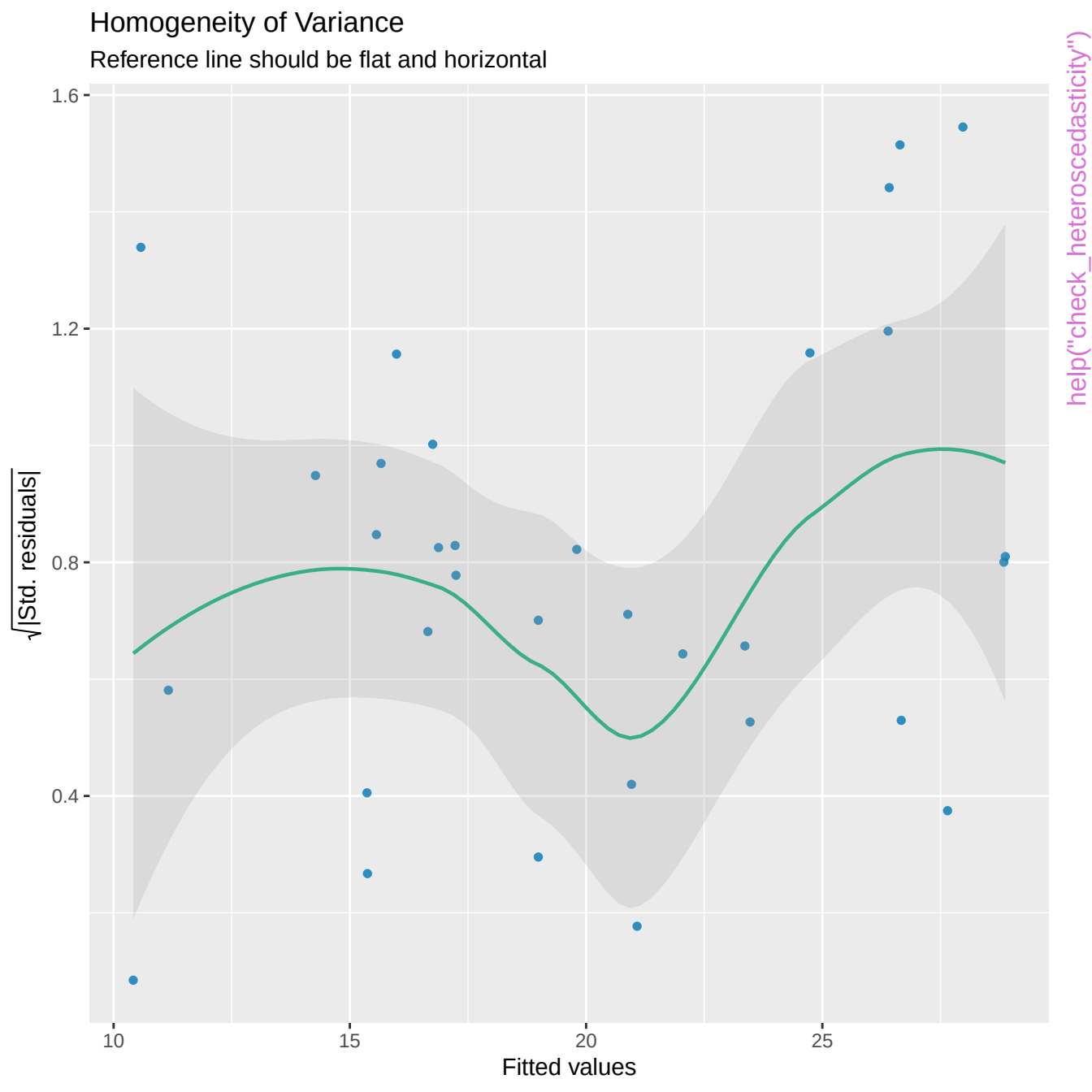
help("check_distribution")

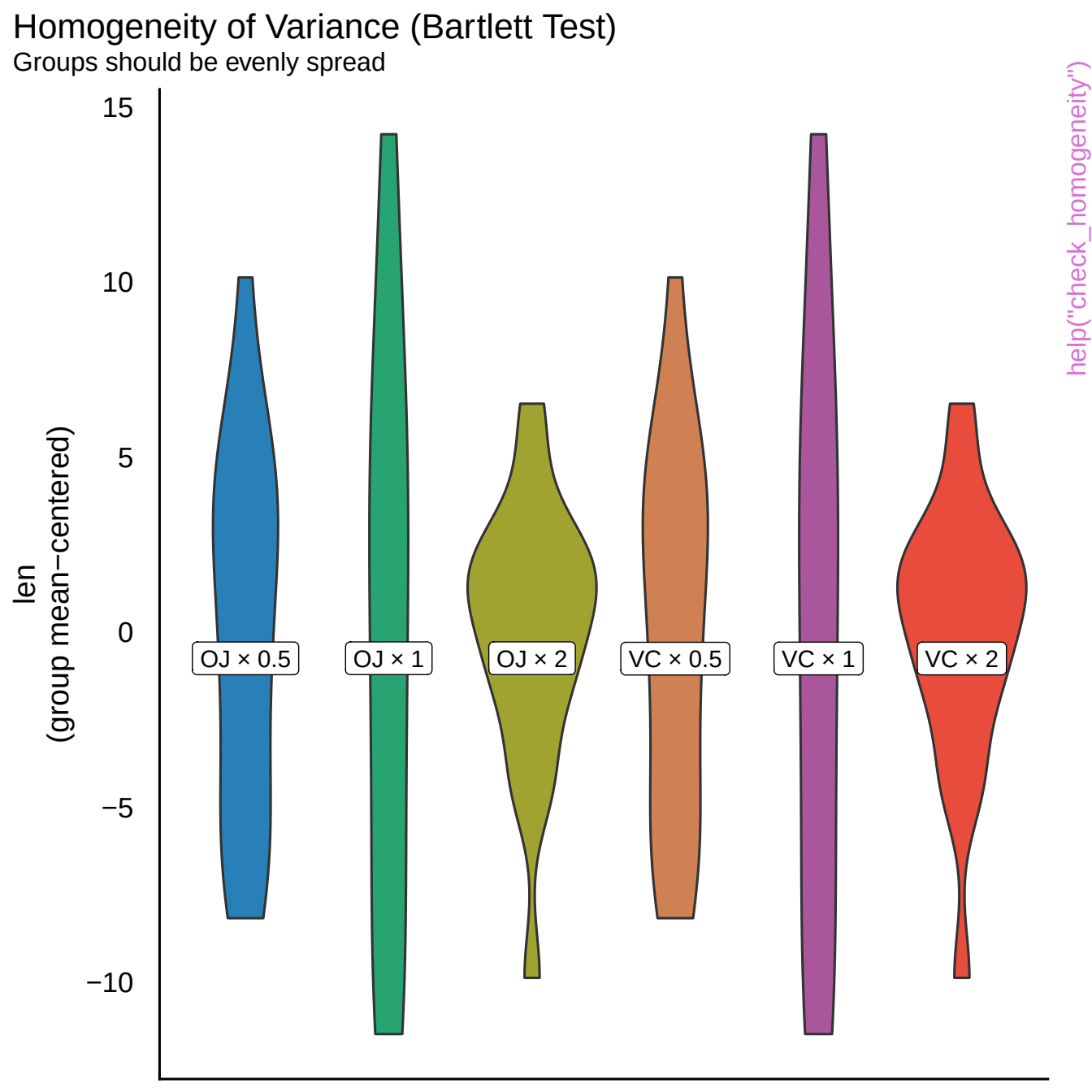
Density of Residuals

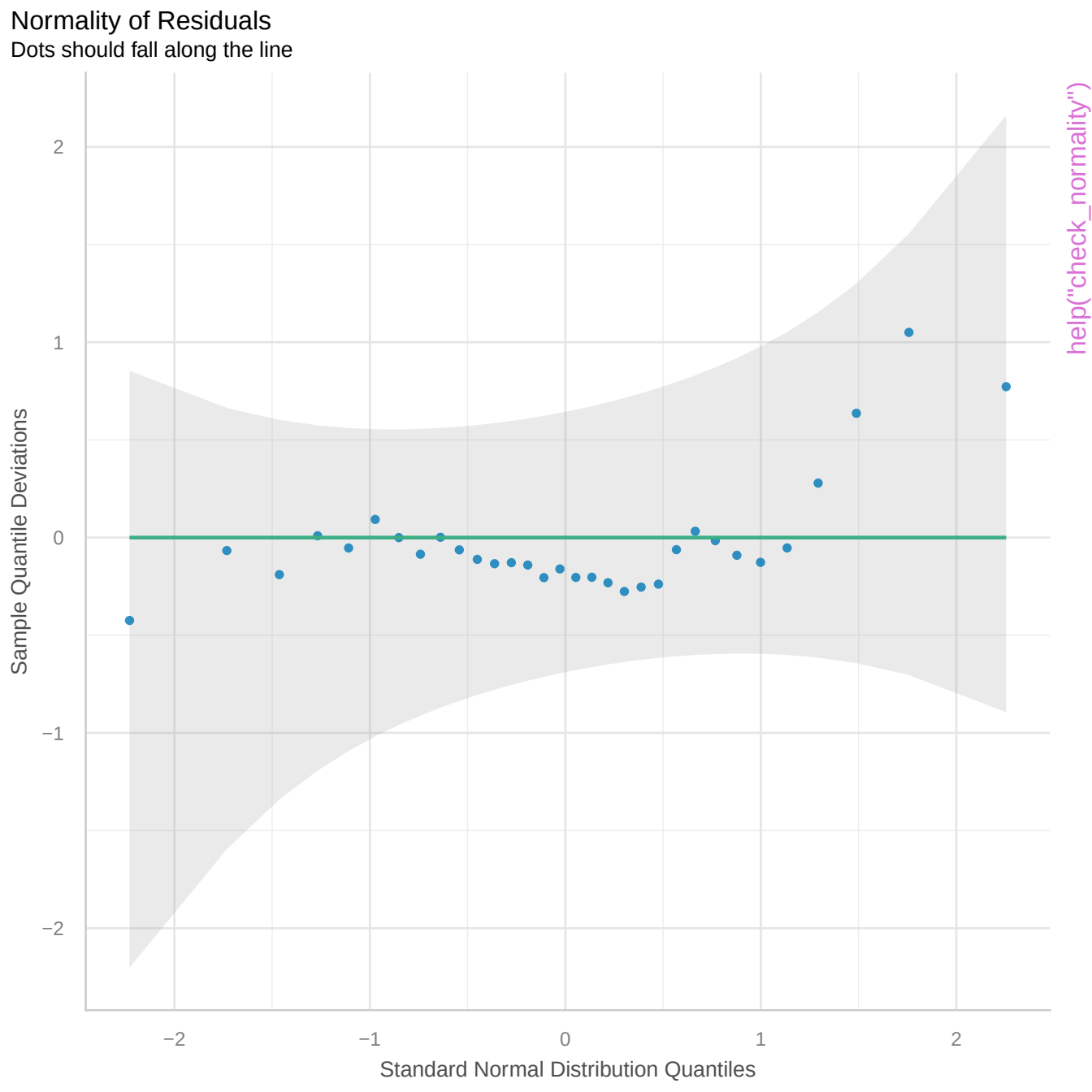


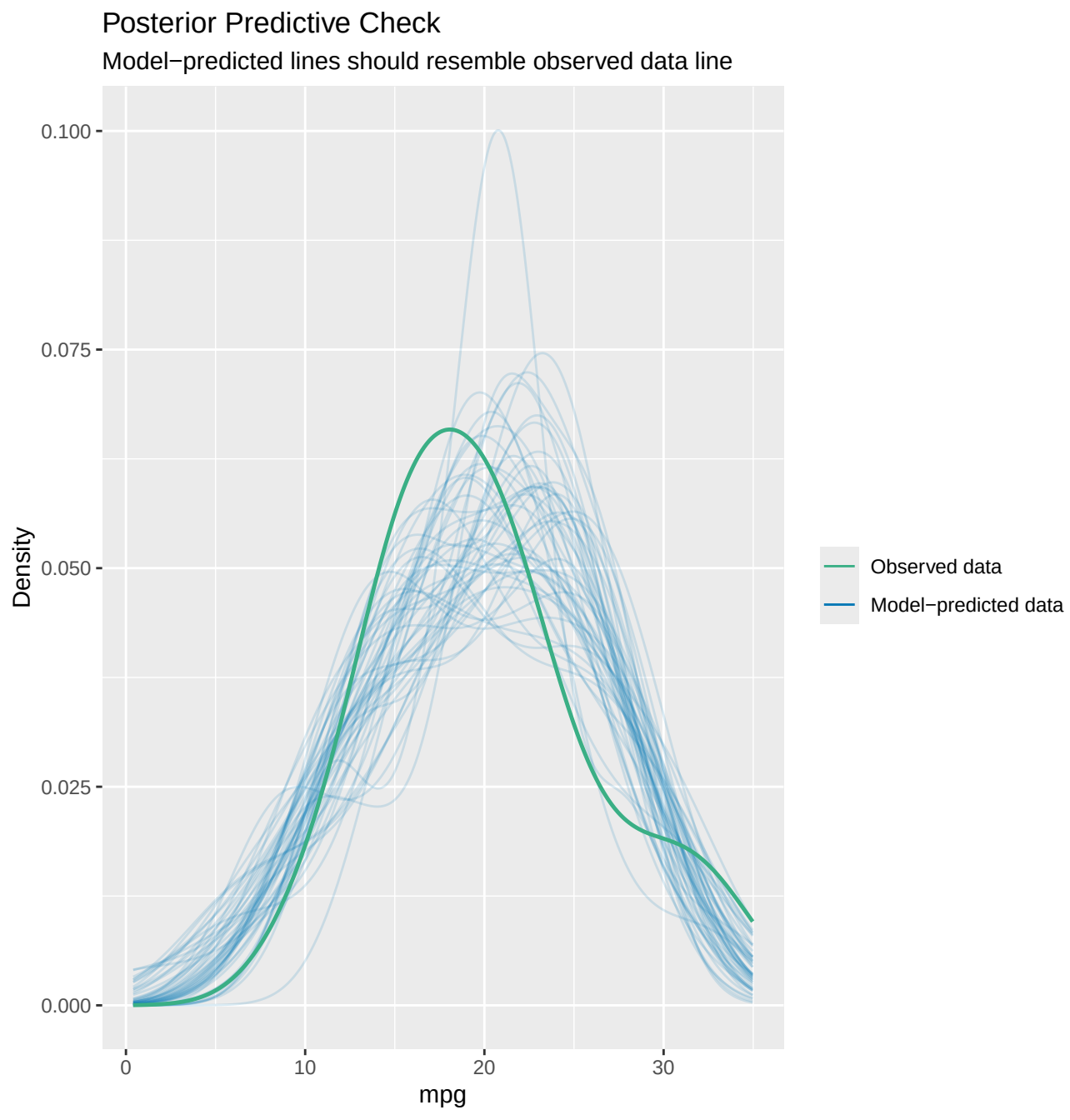
Distribution of Response

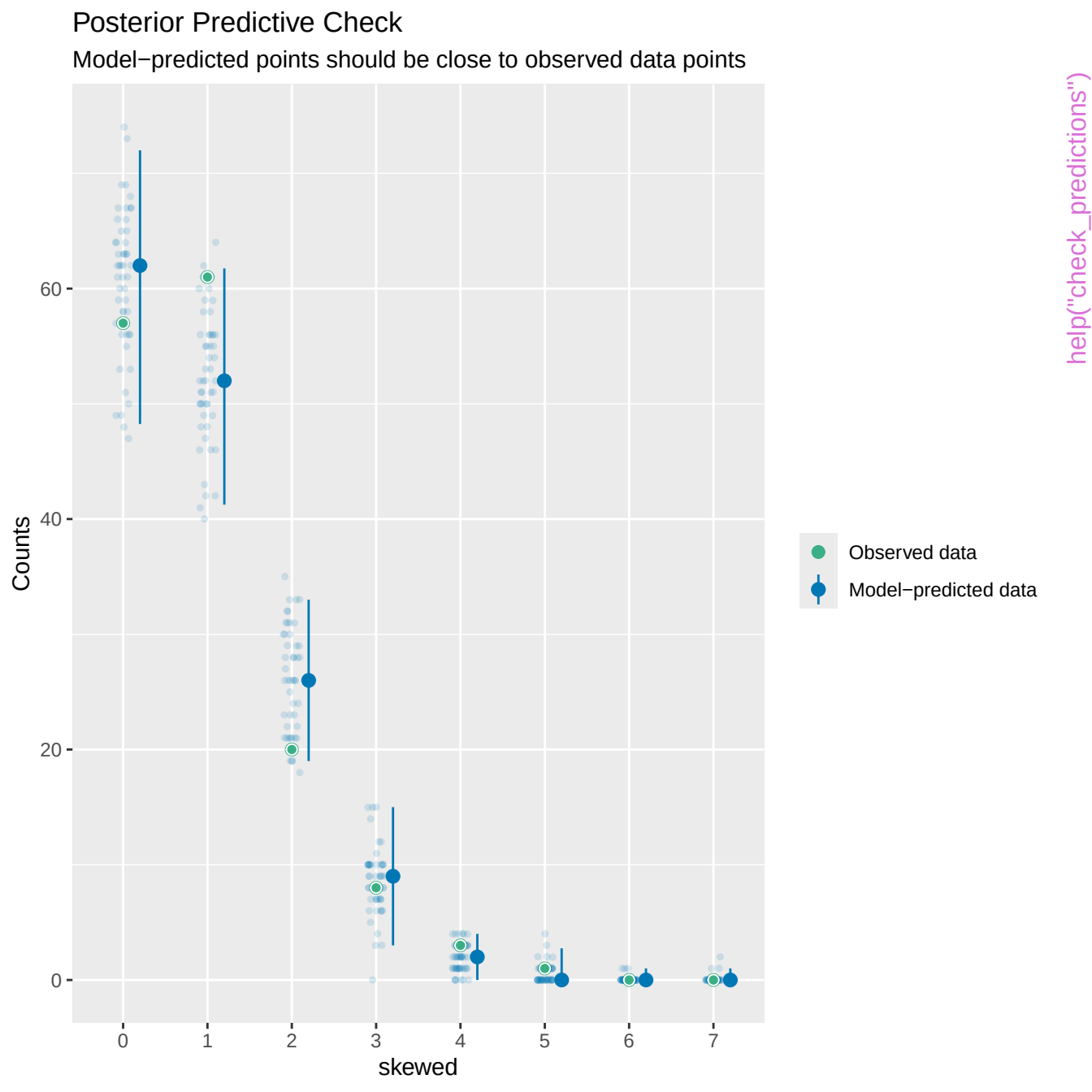



Homogeneity of Variance
Reference line should be flat and horizontal
1.6
1.2
0.8
0.4
√|Std. residuals|
10
15
20
25
Fitted values
help("check_heteroscedasticity")


Homogeneity of Variance (Bartlett Test)
Groups should be evenly spread
15
10
5
0
−5
−10
len
(group mean−centered)
OJ × 0.5
OJ × 1
OJ × 2
VC × 0.5
VC × 1
VC × 2
help("check_homogeneity")


Normality of Residuals
Dots should fall along the line
help("check_normality")
Sample Quantile Deviations
Standard Normal Distribution Quantiles
2
1
0
−1
−2
−2
−1
0
1
2


Posterior Predictive Check
Model−predicted lines should resemble observed data line
Density
0.100
0.075
0.050
0.025
0.000
0
10
20
30
mpg
Observed data
Model−predicted data
help("check_predictions")


Posterior Predictive Check
Model−predicted points should be close to observed data points
help("check_predictions")
Counts
60
40
20
0
0
1
2
3
4
5
6
7
skewed
Observed data
Model−predicted data