Modelování depresivity

Initial checks → **Linearity and unusual cases** → **Graphs: scatterplots**

Graphs: scatterplots → **Lack of linearity** → **Transform data** → **Linearity and unusual cases**

Initial checks → **Run initial regression** → **Save diagnostics**

Run initial regression → **Check residuals**

Check residuals →
- **Linearity**
- **Homoscedasticity**
- **Independence**

Linearity, **Homoscedasticity**, **Independence** → **Graphs: zpred vs. zresid**

Check residuals → **Normality** → **Graphs: histogram**

Assumptions met and no bias → **Model can be generalized**

Heteroscedasticity → **Weighted least squares regression**

No normality → **Bootstrap CIs, transform data**

Lack of independence → **Use a multilevel model (Chapter 21)**

Y: deprese

- X:
  - selfe (self-esteem),
  - duv_v (důvěra k vrstevníkům)
  - vekr (věk)
  - mat99 (známka z matematiky)
  - zdravi (zdravotní potíže psychosomatického rázu)

TABLE 2.1   Zero-Order Matrix

Variable	Mean	SD	Variable			
			A	*B*	*C*	*D*
A	7.00	.45	.84			
B	2.00	.32	.11	.90		
C	3.33	.11	.34	.22	.98	
D	5.00	.24	.10	.08	.28	.84

TABLE 8.10 Pearson Correlations, Means, and Standard Deviation for Scales ($N = 79$)

Indicant	1	2	3	4	5	6	7	8
Innovativeness	1.00							
Acceptance	.67	1.00						
Communication Quality	.59	.52	1.00					
Slack Resources	.37	.49	.27	1.00				
Prominence	.16	.12	.08	−.13	1.00			
Range	.29	.13	.14	−.04	.77	1.00		
Formalization	.36	.32	.56	.17	−.16	−.09	1.00	
Decentralization	.66	.67	.45	.42	.15	.27	.14	1.00
M	6.33	6.26	6.86	4.36	.01	3.31	7.22	5.45
SD	1.62	1.70	1.47	1.78	.02	5.30	1.38	2.17

Note. From "Testing Two Contrasting Structural Models of Innovativeness in a Contractual Network," by J. D. Johnson, M. E. Meyer, J. M. Berkowitz, C. T. Ethington, & V. D. Miller, 1997, *Human Communication Research, 24,* p. 336. Used by permission of Oxford University Press.

Table 9.2 Linear model of predictors of album sales. 95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors based on 1000 bootstrap samples

	b	$SE\ B$	β	p
Step 1				
Constant	134.14 (120.11, 148.79)	7.95		0.001
Advertising Budget	0.10 (0.08, 0.11)	0.01	0.58	0.001
Step 2				
Constant	−26.61 (−55.40, 8.60)	16.30		0.097
Advertising Budget	0.09 (0.07, 0.10)	0.01	0.51	0.001
Plays on BBC Radio 1	3.37 (2.74, 4.02)	0.32	0.51	0.001
Image	11.09 (6.46, 15.01)	2.22	0.19	0.001

Note. $R^2 = 0.34$ for Step 1; $\Delta R^2 = 0.33$ for Step 2 (all $ps < 0.001$).

TABLE 8.12 Hierarchical Regression Predicting Bulimic Action Tendencies ($N = 214$)

Predictor Variables	Zero-Order r	B	SE B	β	Block ΔR^2
Step 1 Demographics					.01
BMI	−.05	−.06	.02	−.03	
SES	−.02	−.02	.09	−.01	
Ethnicity	−.04	−.04	.08	−.04	
Age	−.09	−.05	.04	−.08	
Step 2 Endorse thin ideal	.30***	.45	.10	.30***	.09
Step 3 Total TV exposure	.01	.08	.03	−.002	.000
Step 4 Exposure to thin drama	−.11	−.14	.07	−.15*	.02
Step 5 Body image processing					.10
Question images	.22**	.10	.06	.12	
Compare images	.39***	.27	.08	.29**	
Images realistic and ideal	.24***	.06	.09	.05	
Step 6 Interactions					.04
Endorse × question		.23	.10	.17*	
Images real × question		−.26	.08	−.24**	
Endorse × TV drama		−.03	.12	−.02	
Endorse × total TV		.02	.06	.02	