The LOGISTIC Procedure

Model Information	
Data Set	WORK.Q1
Response Variable	ca
Number of Response Levels	2
Frequency Variable	count
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	12
Number of Observations Used	12
Sum of Frequencies Read	850
Sum of Frequencies Used	850

Response Profile

Ordered Value	ca	Total Frequency
1	0	350
2	1	500

Probability modeled is ca=1.

Class Level Information

Class	Value	Design Variables	
res	0	0	
	1	1	
stress	0	0	0
	1	1	0
	2	0	1

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Deviance and Pearson Goodness-of-Fit Statistics

Criterion	Value	DF	Value/DF	Pr > ChiSq
Deviance	2.7580	2	1.3790	0.2518
Pearson	2.7493	2	1.3747	0.2529

Number of unique profiles: 6

Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	1153.740	1146.263
SC	1158.486	1165.244
-2 Log L	1151.740	1138.263

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0

Test	*Chi-Square*	*DF*	*Pr > ChiSq*
Likelihood Ratio	13.4772	3	0.0037
Score	13.1006	3	0.0044
Wald	12.8398	3	0.0050

Type 3 Analysis of Effects

Effect	*DF*	*Wald Chi-Square*	*Pr > ChiSq*
stress	2	11.6773	0.0029
res	1	1.3253	0.2496

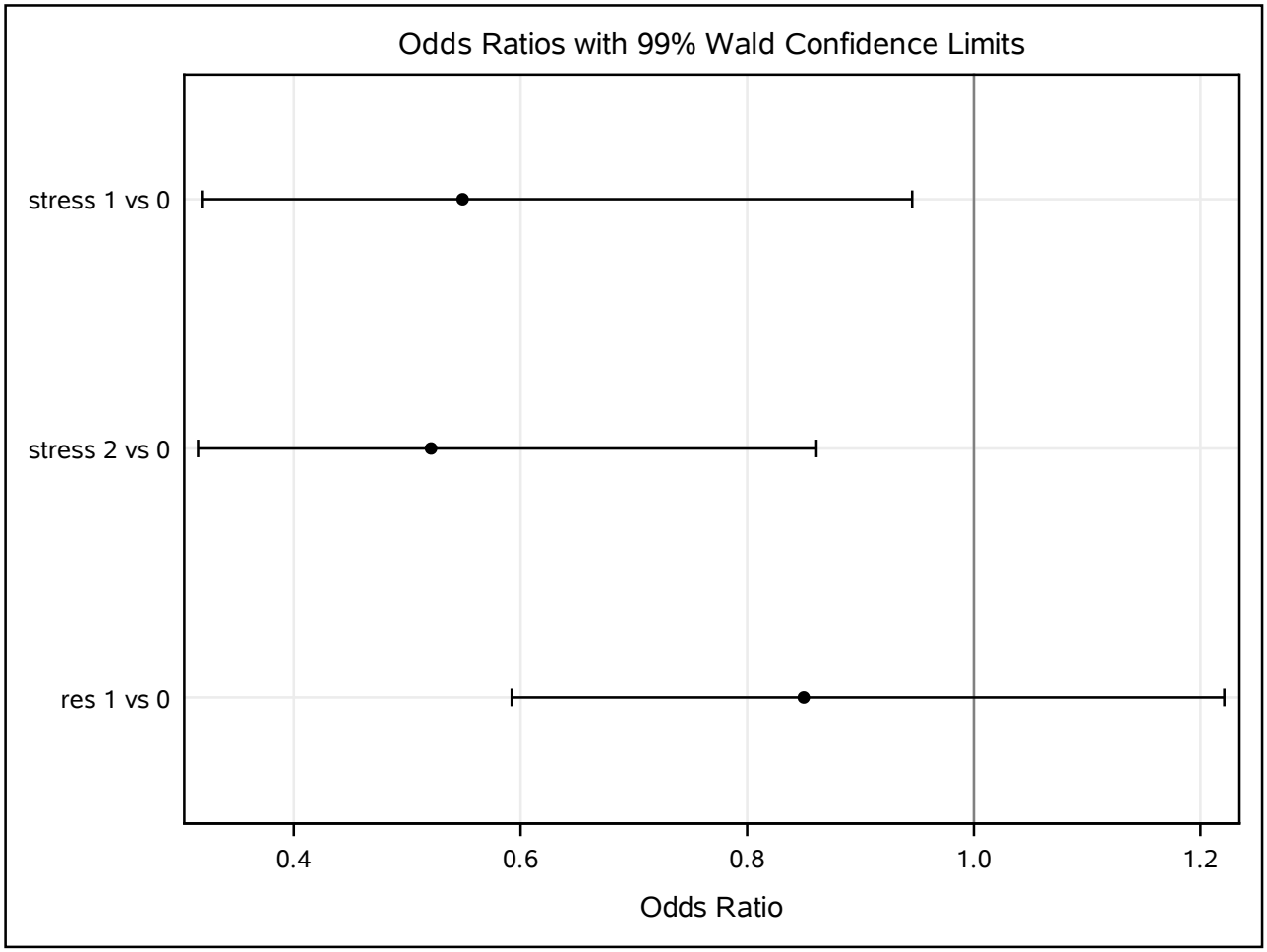
Analysis of Maximum Likelihood Estimates

Parameter		*DF*	*Estimate*	*Standard Error*	*Wald Chi-Square*	*Pr > ChiSq*
Intercept		1	0.9496	0.1838	26.7023	<.0001
stress	*1*	1	-0.5983	0.2110	8.0433	0.0046
stress	*2*	1	-0.6505	0.1948	11.1476	0.0008
res	*1*	1	-0.1618	0.1405	1.3253	0.2496

Odds Ratio Estimates

Effect	*Point Estimate*	*99% Wald Confidence Limits*	
stress 1 vs 0	0.550	0.319	0.947
stress 2 vs 0	0.522	0.316	0.862
res 1 vs 0	0.851	0.592	1.222

The LOGISTIC Procedure

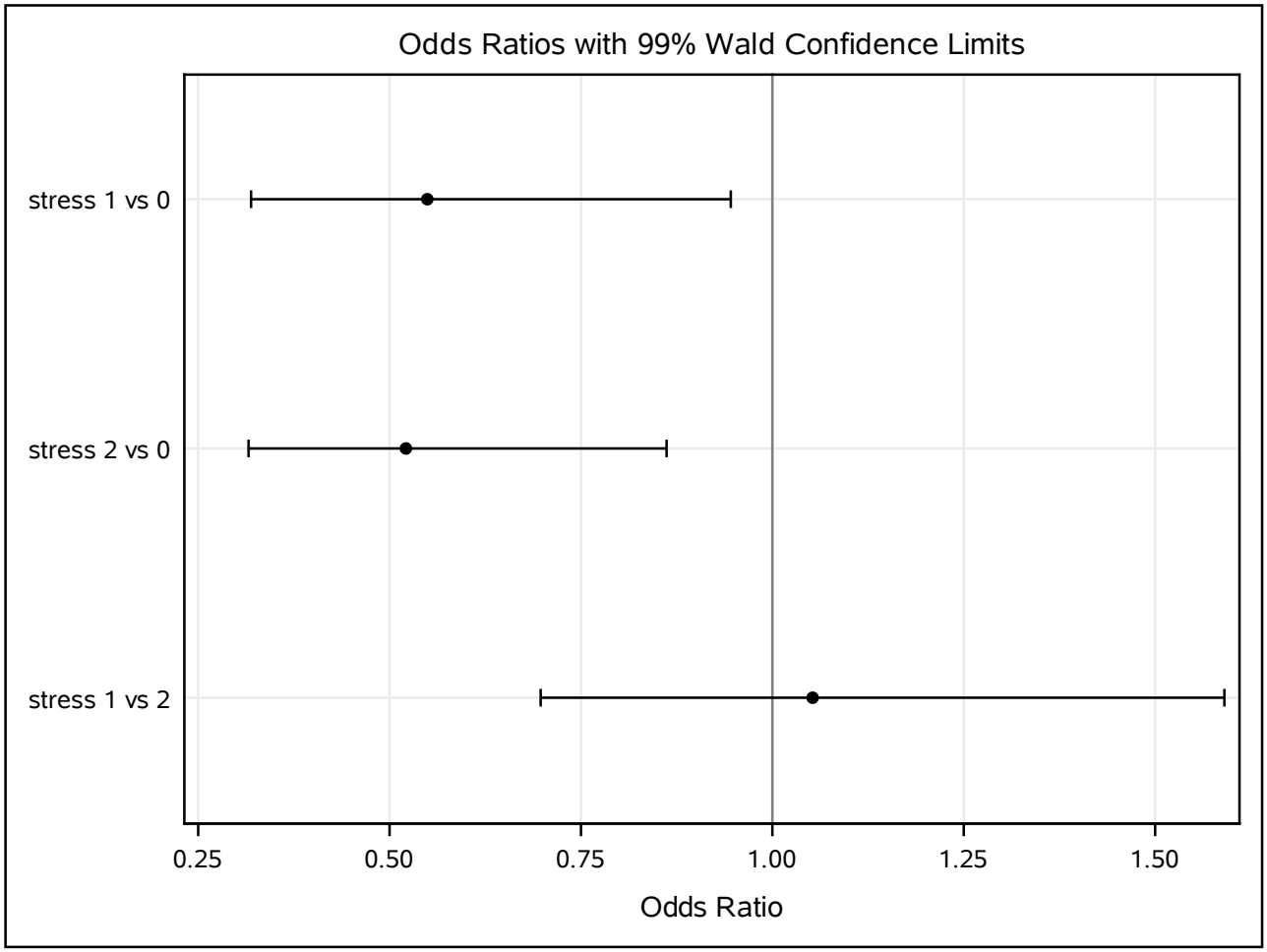


Association of Predicted Probabilities and Observed Responses			
Percent Concordant	46.3	*Somers' D*	0.117
Percent Discordant	34.6	*Gamma*	0.144
Percent Tied	19.1	*Tau-a*	0.057
Pairs	175000	*c*	0.558

Odds Ratio Estimates and Wald Confidence Intervals

Odds Ratio	*Estimate*	*99% Confidence Limits*	
stress 1 vs 0	0.550	0.319	0.947
stress 2 vs 0	0.522	0.316	0.862
stress 1 vs 2	1.054	0.698	1.591

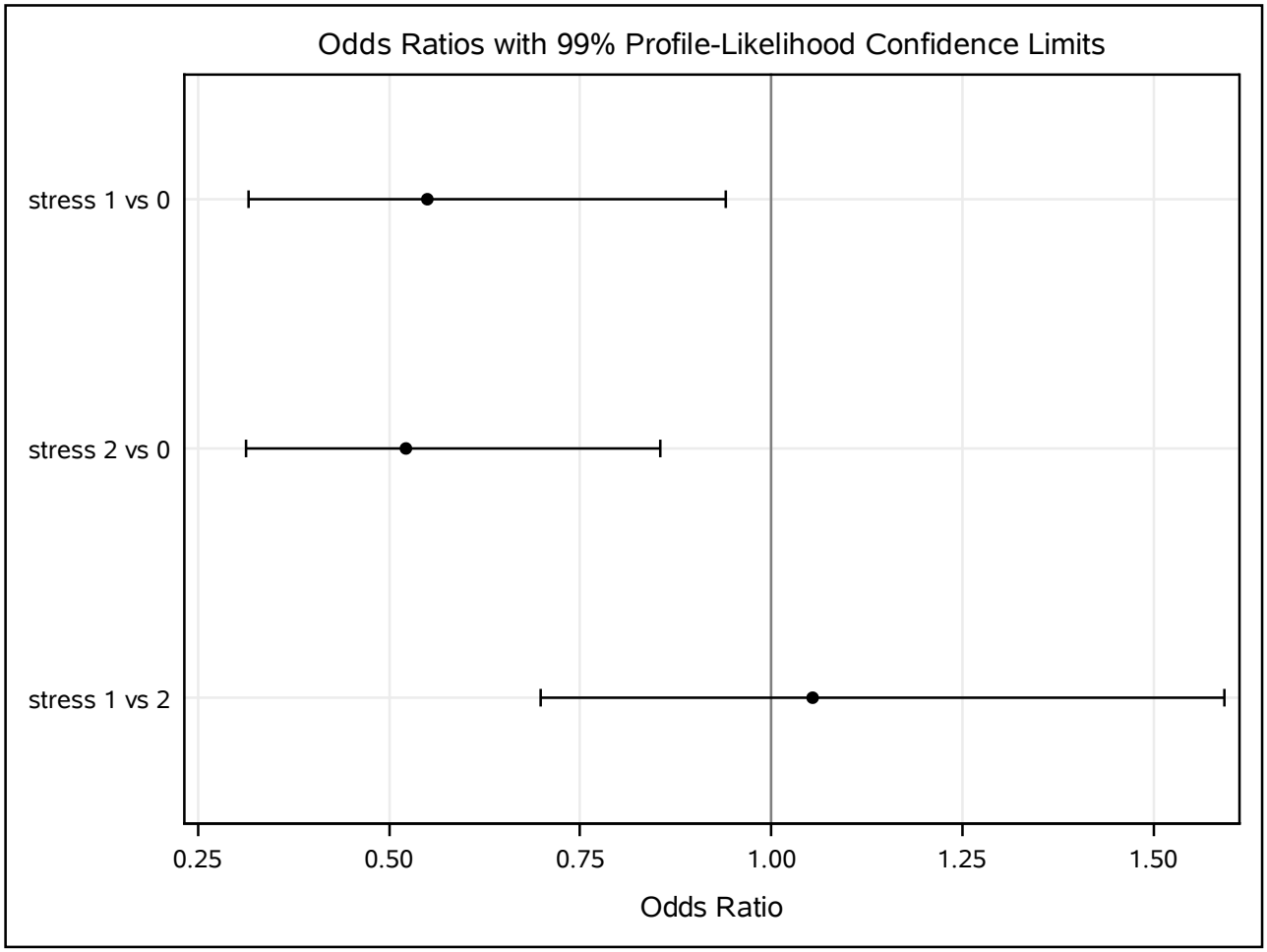
The LOGISTIC Procedure



Odds Ratio Estimates and Profile-Likelihood Confidence Intervals

Odds Ratio	*Estimate*	*99% Confidence Limits*	
stress 1 vs 0	0.550	0.316	0.941
stress 2 vs 0	0.522	0.312	0.855
stress 1 vs 2	1.054	0.698	1.593

The LOGISTIC Procedure



Parameter Estimates and Wald Confidence Intervals

Parameter		*Estimate*	*99% Confidence Limits*	
Intercept		0.9496	0.4762	1.4229
stress	*1*	-0.5983	-1.1417	-0.0549
stress	*2*	-0.6505	-1.1524	-0.1487
res	*1*	-0.1618	-0.5238	0.2002

The LOGISTIC Procedure

Model Information	
Data Set	WORK.Q1
Response Variable	ca
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Frequency Variable	count
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	12
Number of Observations Used	12
Sum of Frequencies Read	850
Sum of Frequencies Used	850

Response Profile

Ordered Value	*ca*	*Total Frequency*
1	0	350
2	1	500

Probability modeled is ca=1.

Class Level Information

Class	*Value*	*Design Variables*	
res	*0*	-1	
	1	1	
stress	*0*	-1	-1
	1	1	0
	2	0	1

Model Convergence Status

Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics

Criterion	*Intercept Only*	*Intercept and Covariates*
AIC	1153.740	1146.263
SC	1158.486	1165.244
-2 Log L	1151.740	1138.263

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0

Test	*Chi-Square*	*DF*	*Pr > ChiSq*
Likelihood Ratio	13.4772	3	0.0037
Score	13.1006	3	0.0044
Wald	12.8398	3	0.0050

Type 3 Analysis of Effects

Effect	*DF*	*Wald Chi-Square*	*Pr > ChiSq*
res	1	1.3253	0.2496
stress	2	11.6773	0.0029

Analysis of Maximum Likelihood Estimates

Parameter		*DF*	*Estimate*	*Standard Error*	*Wald Chi-Square*	*Pr > ChiSq*
Intercept		1	0.4524	0.0775	34.1135	<.0001
res	*1*	1	-0.0809	0.0703	1.3253	0.2496
stress	*1*	1	-0.1820	0.1066	2.9179	0.0876
stress	*2*	1	-0.2343	0.0958	5.9818	0.0145

Odds Ratio Estimates

Effect		*Point Estimate*	*95% Wald Confidence Limits*	
res	*1 vs 0*	0.851	0.646	1.120
stress	*1 vs 0*	0.550	0.364	0.831
stress	*2 vs 0*	0.522	0.356	0.764

Association of Predicted Probabilities and Observed Responses

Percent Concordant	46.3	*Somers' D*	0.117
Percent Discordant	34.6	*Gamma*	0.144
Percent Tied	19.1	*Tau-a*	0.057
Pairs	175000	*c*	0.558

Obs	*res*	*stress*	*ca*	*count*	*_LEVEL_*	*prob*
1	0	0	0	20	1	0.72103
2	0	0	1	64	1	0.72103
3	0	1	0	50	1	0.58693
4	0	1	1	76	1	0.58693
5	0	2	0	100	1	0.57421
6	0	2	1	122	1	0.57421
7	1	0	0	30	1	0.68736
8	1	0	1	55	1	0.68736
9	1	1	0	60	1	0.54724
10	1	1	1	68	1	0.54724
11	1	2	0	90	1	0.53427
12	1	2	1	115	1	0.53427

The LOGISTIC Procedure

Model Information	
Data Set	WORK.Q3_CAT
Response Variable	ca
Number of Response Levels	2
Frequency Variable	count
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	6
Number of Observations Used	6
Sum of Frequencies Read	180
Sum of Frequencies Used	180

Response Profile

Ordered Value	*ca*	*Total Frequency*
1	0	93
2	1	87

Probability modeled is ca=1.

Class Level Information

Class	*Value*	*Design Variables*	
dose	*dose1*	0	0
	dose10	1	0
	dose100	0	1

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics

Criterion	*Intercept Only*	*Intercept and Covariates*
AIC	251.333	237.759
SC	254.526	247.338
-2 Log L	249.333	231.759

Testing Global Null Hypothesis: BETA=0

Test	*Chi-Square*	*DF*	*Pr > ChiSq*
Likelihood Ratio	17.5742	2	0.0002
Score	17.2191	2	0.0002
Wald	16.3228	2	0.0003

The LOGISTIC Procedure

Type 3 Analysis of Effects

Effect	*DF*	*Wald Chi-Square*	*Pr > ChiSq*
dose	2	16.3228	0.0003

Analysis of Maximum Likelihood Estimates

Parameter		*DF*	*Estimate*	*Standard Error*	*Wald Chi-Square*	*Pr > ChiSq*
Intercept		1	-0.6190	0.2707	5.2308	0.0222
dose	*dose10*	1	0.2136	0.3778	0.3196	0.5718
dose	*dose100*	1	1.4663	0.3907	14.0877	0.0002

Odds Ratio Estimates

Effect	*Point Estimate*	*95% Wald Confidence Limits*	
dose dose10 vs dose1	1.238	0.590	2.596
dose dose100 vs dose1	4.333	2.015	9.319

Association of Predicted Probabilities and Observed Responses

Percent Concordant	50.5	*Somers' D*	0.311
Percent Discordant	19.4	*Gamma*	0.446
Percent Tied	30.1	*Tau-a*	0.156
Pairs	8091	*c*	0.656

The LOGISTIC Procedure

Model Information	
Data Set	WORK.Q3_CONT1
Response Variable	ca
Number of Response Levels	2
Frequency Variable	count
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	6
Number of Observations Used	6
Sum of Frequencies Read	180
Sum of Frequencies Used	180

Response Profile

Ordered Value	*ca*	*Total Frequency*
1	0	93
2	1	87

Probability modeled is ca=1.

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics

Criterion	*Intercept Only*	*Intercept and Covariates*
AIC	251.333	238.299
SC	254.526	244.685
-2 Log L	249.333	234.299

Testing Global Null Hypothesis: BETA=0

Test	*Chi-Square*	*DF*	*Pr > ChiSq*
Likelihood Ratio	15.0337	1	0.0001
Score	14.7164	1	0.0001
Wald	14.0704	1	0.0002

Analysis of Maximum Likelihood Estimates

Parameter	*DF*	*Estimate*	*Standard Error*	*Wald Chi-Square*	*Pr > ChiSq*
Intercept	1	-0.8042	0.2520	10.1834	0.0014
doselog	1	0.7316	0.1950	14.0704	0.0002

The LOGISTIC Procedure

Odds Ratio Estimates

Effect	*Point Estimate*	*95% Wald Confidence Limits*	
doselog	2.078	1.418	3.046

Association of Predicted Probabilities and Observed Responses

Percent Concordant	50.5	*Somers' D*	0.311
Percent Discordant	19.4	*Gamma*	0.446
Percent Tied	30.1	*Tau-a*	0.156
Pairs	8091	*c*	0.656