Frequencies of Check and Score for ewach Treatment Group

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Trmt by Check

Trmt	Check 0	Check 1	Total
A	6 16.67 66.67 35.29	3 8.33 33.33 15.79	9 25.00
B	3 8.33 33.33 17.65	6 16.67 66.67 31.58	9 25.00
C	7 19.44 77.78 41.18	2 5.56 22.22 10.53	9 25.00
D	1 2.78 11.11 5.88	8 22.22 88.89 42.11	9 25.00
Total	17 47.22	19 52.78	36 100.00

Frequency
Percent
Row Pct
Col Pct

Table of Trmt by Score

Trmt	Score 1	Score 2	Score 3	Score 4	Score 5	Total
A	4 11.11 44.44 44.44	3 8.33 33.33 37.50	2 5.56 22.22 22.22	0 0.00 0.00 0.00	0 0.00 0.00 0.00	9 25.00
B	5 13.89 55.56 55.56	3 8.33 33.33 37.50	1 2.78 11.11 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	9 25.00
C	0 0.00 0.00 0.00	2 5.56 22.22 25.00	2 5.56 22.22 22.22	3 8.33 33.33 50.00	2 5.56 22.22 50.00	9 25.00
D	0 0.00 0.00 0.00	0 0.00 0.00 0.00	4 11.11 44.44 44.44	3 8.33 33.33 50.00	2 5.56 22.22 50.00	9 25.00
Total	9 25.00	8 22.22	9 25.00	6 16.67	4 11.11	36 100.00

Results for Check - in relation to the value of '0' in Check

The GLIMMIX Procedure

Model Information	
Data Set	WORK.ORPLAY
Response Variable	Check
Response Distribution	Binary
Link Function	Logit
Variance Function	Default
Variance Matrix	Diagonal
Estimation Technique	Maximum Likelihood
Degrees of Freedom Method	Residual

Class Level Information		
Class	**Levels**	**Values**
Trmt	4	A B C D

Number of Observations Read	36
Number of Observations Used	36

Response Profile		
Ordered Value	**Check**	**Total Frequency**
1	0	17
2	1	19
The GLIMMIX procedure is modeling the probability that Check='0'.		

Dimensions	
Columns in X	5
Columns in Z	0
Subjects (Blocks in V)	1
Max Obs per Subject	36

Optimization Information	
Optimization Technique	Newton-Raphson
Parameters in Optimization	4
Lower Boundaries	0
Upper Boundaries	0
Fixed Effects	Not Profiled

Results for Check - in relation to the value of '0' in Check

The GLIMMIX Procedure

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	19.415203177	.	0.328405
1	0	3	19.364190787	0.05101239	0.006885
2	0	3	19.364099685	0.00009110	0.000052
3	0	3	19.364099683	0.00000000	1.329E-9

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

Fit Statistics	
-2 Log Likelihood	38.73
AIC (smaller is better)	46.73
AICC (smaller is better)	48.02
BIC (smaller is better)	53.06
CAIC (smaller is better)	57.06
HQIC (smaller is better)	48.94
Pearson Chi-Square	36.00
Pearson Chi-Square / DF	1.12

Parameter Estimates						
Effect	Trmt	Estimate	Standard Error	DF	t Value	Pr > |t|
Intercept		-2.0794	1.0607	32	-1.96	0.0587
Trmt	A	2.7726	1.2748	32	2.17	0.0371
Trmt	B	1.3863	1.2748	32	1.09	0.2849
Trmt	C	3.3322	1.3296	32	2.51	0.0175
Trmt	D	0	.	.	.	.

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Trmt	3	32	2.74	0.0598

Results for Check - in relation to the value of '0' in Check

The GLIMMIX Procedure

Odds Ratio Estimates					
Trmt	_Trmt	Estimate	DF	95% Confidence Limits	
A	B	4.000	32	0.522	30.668
A	C	0.571	32	0.065	5.043
A	D	16.000	32	1.192	214.687
B	C	0.143	32	0.016	1.261
B	D	4.000	32	0.298	53.672
C	D	28.000	32	1.866	420.114

Contrasts				
Label	Num DF	Den DF	F Value	Pr > F
Treatment A vs Treatment B	1	32	1.92	0.1752
Treatment A vs Treatment C	1	32	0.27	0.6043
Treatment A vs Treatment D	1	32	4.73	0.0371
Treatment B vs Treatment C	1	32	3.31	0.0781
Treatment C vs Treatment D	1	32	1.18	0.2849
Treatment C vs Treatment D	1	32	6.28	0.0175

Results for Check - in relation to the value of '1' in Check

The GLIMMIX Procedure

Model Information	
Data Set	WORK.ORPLAY
Response Variable	Check
Response Distribution	Binary
Link Function	Logit
Variance Function	Default
Variance Matrix	Diagonal
Estimation Technique	Maximum Likelihood
Degrees of Freedom Method	Residual

Class Level Information		
Class	**Levels**	**Values**
Trmt	4	A B C D

Number of Observations Read	36
Number of Observations Used	36

Response Profile		
Ordered Value	**Check**	**Total Frequency**
1	0	17
2	1	19
The GLIMMIX procedure is modeling the probability that Check='1'.		

Dimensions	
Columns in X	5
Columns in Z	0
Subjects (Blocks in V)	1
Max Obs per Subject	36

Optimization Information	
Optimization Technique	Newton-Raphson
Parameters in Optimization	4
Lower Boundaries	0
Upper Boundaries	0
Fixed Effects	Not Profiled

Results for Check - in relation to the value of '1' in Check

The GLIMMIX Procedure

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	19.415203177	.	0.328405
1	0	3	19.364190787	0.05101239	0.006885
2	0	3	19.364099685	0.00009110	0.000052
3	0	3	19.364099683	0.00000000	1.329E-9

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

Fit Statistics	
-2 Log Likelihood	38.73
AIC (smaller is better)	46.73
AICC (smaller is better)	48.02
BIC (smaller is better)	53.06
CAIC (smaller is better)	57.06
HQIC (smaller is better)	48.94
Pearson Chi-Square	36.00
Pearson Chi-Square / DF	1.12

Parameter Estimates						
Effect	Trmt	Estimate	Standard Error	DF	t Value	Pr > |t|
Intercept		2.0794	1.0607	32	1.96	0.0587
Trmt	A	-2.7726	1.2748	32	-2.17	0.0371
Trmt	B	-1.3863	1.2748	32	-1.09	0.2849
Trmt	C	-3.3322	1.3296	32	-2.51	0.0175
Trmt	D	0	.	.	.	.

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Trmt	3	32	2.74	0.0598

Results for Check - in relation to the value of '1' in Check

The GLIMMIX Procedure

Odds Ratio Estimates					
Trmt	_Trmt	Estimate	DF	95% Confidence Limits	
A	B	0.250	32	0.033	1.917
A	C	1.750	32	0.198	15.444
A	D	0.063	32	0.005	0.839
B	C	7.000	32	0.793	61.774
B	D	0.250	32	0.019	3.354
C	D	0.036	32	0.002	0.536

Contrasts				
Label	Num DF	Den DF	F Value	Pr > F
Treatment A vs Treatment B	1	32	1.92	0.1752
Treatment A vs Treatment C	1	32	0.27	0.6043
Treatment A vs Treatment D	1	32	4.73	0.0371
Treatment B vs Treatment C	1	32	3.31	0.0781
Treatment C vs Treatment D	1	32	1.18	0.2849
Treatment C vs Treatment D	1	32	6.28	0.0175

The GLIMMIX Procedure

Model Information	
Data Set	WORK.ORPLAY
Response Variable	Score
Response Distribution	Multinomial (ordered)
Link Function	Cumulative Logit
Variance Function	Default
Estimation Technique	Maximum Likelihood
Degrees of Freedom Method	Residual

Class Level Information		
Class	**Levels**	**Values**
Trmt	4	A B C D

Number of Observations Read	36
Number of Observations Used	36

Response Profile		
Ordered Value	**Score**	**Total Frequency**
1	1	9
2	2	8
3	3	9
4	4	6
5	5	4

The GLIMMIX procedure is modeling the probabilities of levels of Score having lower Ordered Values in the Response Profile table.

Dimensions	
Columns in X	8
Columns in Z	0
Subjects (Blocks in V)	1
Max Obs per Subject	36

The GLIMMIX Procedure

Optimization Information	
Optimization Technique	Newton-Raphson
Parameters in Optimization	7
Lower Boundaries	0
Upper Boundaries	0
Fixed Effects	Not Profiled

Iteration History

Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	**0**	4	56.525372799	.	4.388889
1	**0**	3	43.605000459	12.92037234	2.264484
2	**0**	3	42.577727308	1.02727315	0.490292
3	**0**	3	42.493243161	0.08448415	0.04937
4	**0**	3	42.49224679	0.00099637	0.000753
5	**0**	3	42.492246561	0.00000023	1.938E-7

Convergence criterion (ABSGCONV=0.00001) satisfied.

Fit Statistics	
-2 Log Likelihood	84.98
AIC (smaller is better)	98.98
AICC (smaller is better)	102.98
BIC (smaller is better)	110.07
CAIC (smaller is better)	117.07
HQIC (smaller is better)	102.85

Parameter Estimates

Effect	Score	Trmt	Estimate	Standard Error	DF	t Value	Pr > |t|
Intercept	1		-4.3129	1.0515	29	-4.10	0.0003
Intercept	2		-2.4897	0.8760	29	-2.84	0.0081
Intercept	3		-0.3336	0.6156	29	-0.54	0.5921
Intercept	4		1.1223	0.6903	29	1.63	0.1148
Trmt		A	3.9990	1.1418	29	3.50	0.0015
Trmt		B	4.5478	1.1865	29	3.83	0.0006
Trmt		C	0.3310	0.8709	29	0.38	0.7067
Trmt		D	0	.	.	.	.

Results for Score - a multinomial outcome measure

The GLIMMIX Procedure

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Trmt	3	29	5.95	0.0027

Odds Ratio Estimates					
Trmt	_Trmt	Estimate	DF	95% Confidence Limits	
A	B	0.578	29	0.090	3.708
A	C	39.174	29	3.779	406.037
A	D	54.544	29	5.280	563.489
B	C	67.814	29	5.982	768.763
B	D	94.421	29	8.340	>999.999
C	D	1.392	29	0.235	8.266

Estimates							
Label	Estimate	Standard Error	DF	t Value	Pr > |t|	Mean	Standard Error Mean
score 1: Treatment A	-0.3139	0.6609	29	-0.48	0.6383	0.4222	0.1612
score 1,2: Treatment A	1.5093	0.7554	29	2.00	0.0552	0.8190	0.1120
score 1,2,3: Treatment A	3.6654	1.0193	29	3.60	0.0012	0.9750	0.02480
score 1,2,3,4: Treatment A	5.1213	1.1233	29	4.56	<.0001	0.9941	0.006625
score 1: Treatment B	0.2348	0.6555	29	0.36	0.7227	0.5584	0.1616
score 1,2: Treatment B	2.0581	0.8164	29	2.52	0.0175	0.8868	0.08197
score 1,2,3: Treatment B	4.2142	1.0698	29	3.94	0.0005	0.9854	0.01536
score 1,2,3,4: Treatment B	5.6701	1.1690	29	4.85	<.0001	0.9966	0.004002
score 1: Treatment C	-3.9819	1.0512	29	-3.79	0.0007	0.01831	0.01889
score 1,2: Treatment C	-2.1587	0.8807	29	-2.45	0.0205	0.1035	0.08174
score 1,2,3: Treatment C	-0.00260	0.6772	29	-0.00	0.9970	0.4994	0.1693
score 1,2,3,4: Treatment C	1.4533	0.7433	29	1.96	0.0602	0.8105	0.1142
score 1: Treatment D	-4.3129	1.0515	29	-4.10	0.0003	0.01322	0.01371
score 1,2: Treatment D	-2.4897	0.8760	29	-2.84	0.0081	0.07659	0.06195
score 1,2,3: Treatment D	-0.3336	0.6156	29	-0.54	0.5921	0.4174	0.1497
score 1,2,3,4: Treatment D	1.1223	0.6903	29	1.63	0.1148	0.7544	0.1279