

Obs	ID	Sex	Group	Days	Fatmass	MuscleGlycogen	GlRperkgFFMperinsulin
1	1	M	HIIT	0	43.1473	517.538	2.6919
2	1	M	HIIT	90	44.4567	623.147	6.7656
3	1	M	HIIT	93	44.4567	726.587	6.1666
4	4	F	MICT	0	39.6760	506.638	5.1617
5	4	F	MICT	90	38.2872	766.439	6.2406
6	4	F	MICT	93	38.2448	628.304	4.8547
7	6	M	MICT	0	49.7871	519.121	4.6351
8	6	M	MICT	90	48.5135	553.229	4.6936
9	6	M	MICT	93	49.7170	832.371	4.4599
10	7	F	MICT	0	44.8836	585.228	13.7358

Obs	ID	Sex	Group	Days	Fatmass	MuscleGlycogen	GIRperkgFFMperinsulin	Fatmass_cent	MuscleGlycogen_cent
1	1	M	HIIT	0	43.1473	517.538	2.6919	2.4673	-77.868
2	1	M	HIIT	90	44.4567	623.147	6.7656	3.7767	27.741
3	1	M	HIIT	93	44.4567	726.587	6.1666	3.7767	131.181
4	4	F	MICT	0	39.6760	506.638	5.1617	-1.0040	-88.768
5	4	F	MICT	90	38.2872	766.439	6.2406	-2.3928	171.033
6	4	F	MICT	93	38.2448	628.304	4.8547	-2.4352	32.898
7	6	M	MICT	0	49.7871	519.121	4.6351	9.1071	-76.285
8	6	M	MICT	90	48.5135	553.229	4.6936	7.8335	-42.176
9	6	M	MICT	93	49.7170	832.371	4.4599	9.0370	236.965
10	7	F	MICT	0	44.8836	585.228	13.7358	4.2036	-10.177

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structure	Unstructured
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	7
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	423.42323233	0.00033472
2	1	423.40988871	0.00000063
3	1	423.40984659	0.00000000

The Mixed Procedure

Convergence criteria met but final Hessian is not positive definite.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	2.8736	2.8340	-0.1998
2	2.8340	8.3183	2.4473
3	-0.1998	2.4473	4.0666

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.5796	-0.05846
2	0.5796	1.0000	0.4208
3	-0.05846	0.4208	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	9.4257

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2993	12.2596	9.2258
2	12.2596	17.7440	11.8730
3	9.2258	11.8730	13.4923

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.8299	0.7162
2	0.8299	1.0000	0.7673
3	0.7162	0.7673	1.0000

The Mixed Procedure

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	9.4257
UN(1,1)	ID	8.3183
UN(2,1)	ID	2.4473
UN(2,2)	ID	4.0666
UN(3,1)	ID	2.8340
UN(3,2)	ID	-0.1998
UN(3,3)	ID	2.8736

Fit Statistics	
-2 Res Log Likelihood	423.4
AIC (Smaller is Better)	437.4
AICC (Smaller is Better)	439.0
BIC (Smaller is Better)	447.2

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
6	54.97	<.0001

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2982	1.1000	53	7.54	<.0001
Sex		M		5.2972	1.2348	53	4.29	<.0001
Days			90	1.6389	0.6302	53	2.60	0.0120
Days			93	1.1010	0.7928	53	1.39	0.1707
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3904	1.5771	53	0.88	0.3820
Group*Days	HIIT		93	0.5446	1.3922	53	0.39	0.6972
Group*Days	HIIT		0	0.9457	1.3128	53	0.72	0.4745
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1235	0.08294	53	-1.49	0.1425
MuscleGlycogen_cent				-0.00180	0.001988	53	-0.91	0.3690

The Mixed Procedure

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	5.45	0.0234
Days	2	53	8.87	0.0005
Group*Days	3	53	0.33	0.8025
Fatmass_cent	1	53	2.22	0.1425
MuscleGlycogen_cent	1	53	0.82	0.3690

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Autoregressive
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	5
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	582.48908596	0.27920337
2	1	503.11157907	0.18122883
3	1	461.11834942	0.10390645
4	1	440.04916791	0.05083433
5	1	430.57249454	0.01976433

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
6	1	427.10125730	0.00531804
7	1	426.21059142	0.00105130
8	1	426.03332345	0.00021883
9	1	425.99830235	0.00001750
10	1	425.99572141	0.00000015
11	1	425.99570033	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	2.8686	0.4248	-0.9259
2	0.4248	3.6007	-1.0373
3	-0.9259	-1.0373	2.2607

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.1322	-0.3636
2	0.1322	1.0000	-0.3636
3	-0.3636	-0.3636	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	11.2284

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	14.0970	11.6533	10.3026
2	11.6533	14.8291	10.1911
3	10.3026	10.1911	13.4892

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.8060	0.7471
2	0.8060	1.0000	0.7206
3	0.7471	0.7206	1.0000

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	11.2284
Var(1)	ID	3.6007
Var(2)	ID	2.2607
Var(3)	ID	2.8686
ARH(1)	ID	-0.3636

Fit Statistics	
-2 Res Log Likelihood	426.0
AIC (Smaller is Better)	436.0
AICC (Smaller is Better)	436.8
BIC (Smaller is Better)	443.0

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
4	52.38	<.0001

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.1779	1.1644	53	7.02	<.0001
Sex		M		5.6011	1.3156	53	4.26	<.0001
Days			90	1.6229	0.6358	53	2.55	0.0136
Days			93	1.1452	0.7781	53	1.47	0.1470
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.2344	1.4499	53	0.85	0.3984
Group*Days	HIIT		93	0.4466	1.3948	53	0.32	0.7501
Group*Days	HIIT		0	0.8118	1.4040	53	0.58	0.5656
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1518	0.08696	53	-1.75	0.0866
MuscleGlycogen_cent				-0.00216	0.002020	53	-1.07	0.2902

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	3.66	0.0611
Days	2	53	8.37	0.0007
Group*Days	3	53	0.31	0.8202
Fatmass_cent	1	53	3.05	0.0866
MuscleGlycogen_cent	1	53	1.14	0.2902

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Ante-dependence
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	6
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	473.55631403	0.17980665
2	1	471.58519019	0.17377530
3	1	470.62046325	0.17086072
4	1	470.14356051	0.16942653
5	1	469.90649827	0.16871497

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
6	1	469.78831701	0.16836080
7	1	469.75880770	0.16827234
8	1	469.71457224	0.16814055
9	1	469.69246721	0.16803141
10	1	469.68970240	0.16809455
11	1	469.68003969	0.16804146
12	1	469.67520674	0.17159387
13	1	469.67293988	0.15920479
14	1	469.67220713	0.19537630
15	1	469.67212866	0.14937300
16	1	469.67177711	0.14125233
17	1	469.66991444	0.13011925
18	1	469.66869784	69.46126882
19	1	469.66762832	0.12929369
20	1	469.66681993	69.45454263
21	1	469.66681270	69.45733371

WARNING: Stopped because of infinite likelihood.

Covariance Parameter Values At Last Iteration		
Cov Parm	Subject	Estimate
UN(1,1)	ID	12.0031
Var(1)	ID	5.4192
Var(2)	ID	0.7079
Var(3)	ID	0.3955
Rho(1)	ID	-0.3983
Rho(2)	ID	-1.0000

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	5
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	431.16081594	0.02237492
2	1	427.32700904	0.00417549
3	1	426.65916521	0.00035690
4	1	426.59530242	0.00083113
5	4	426.56690787	0.00035316

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
6	1	426.50502731	0.00034825
7	1	426.43977333	0.00026652
8	1	426.40324398	0.00024743
9	1	426.35974060	0.00034263
10	3	426.33905186	0.00040623
11	2	426.25496492	0.00396464
12	4	426.19476680	0.00132033
13	3	425.90819472	.
14	1	425.57331460	0.00004437
15	1	425.56702831	0.00000004
16	1	425.56702334	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G matrix is not positive definite.

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	0
Var(1)	ID	17.0028
Var(2)	ID	13.6304
Var(3)	ID	12.2942
CSH	ID	0.7669

Fit Statistics	
-2 Res Log Likelihood	425.6
AIC (Smaller is Better)	433.6
AICC (Smaller is Better)	434.1
BIC (Smaller is Better)	439.2

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
3	52.81	<.0001

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2448	1.1060	53	7.45	<.0001
Sex		M		5.3643	1.2504	53	4.29	<.0001
Days			90	1.6259	0.7152	53	2.27	0.0271
Days			93	1.2138	0.7338	53	1.65	0.1040
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3506	1.5482	53	0.87	0.3869
Group*Days	HIIT		93	0.5255	1.3998	53	0.38	0.7089
Group*Days	HIIT		0	0.8443	1.3144	53	0.64	0.5234
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1492	0.08557	53	-1.74	0.0871
MuscleGlycogen_cent				-0.00258	0.001999	53	-1.29	0.2029

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	4.75	0.0338
Days	2	53	6.99	0.0020
Group*Days	3	53	0.34	0.7980
Fatmass_cent	1	53	3.04	0.0871
MuscleGlycogen_cent	1	53	1.66	0.2029

variance covariance structure
CSH
sex specific var cov structure

14:35 Friday, December 13, 2019 17

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Group Effect	Sex
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	9
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	436.18120045	0.96814715
2	1	432.00035593	0.02464455
3	1	429.23570429	0.01383097

variance covariance structure
CSH
sex specific var cov structure

14:35 Friday, December 13, 2019 **18**

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
4	1	426.52909417	0.02089237
5	1	424.86569985	0.03151411
6	1	415.31262546	0.11631561
7	1	413.07052632	0.01482593
8	1	412.66224673	0.00628606
9	1	412.59968256	0.00573874
10	1	412.56863929	0.00547950
11	1	412.56476041	0.00544771
12	1	412.56282218	0.00543184
13	1	412.56185337	0.00542224
14	1	412.56173231	0.00540749
15	1	412.56149083	0.00539393
16	1	412.56124989	0.00510536
17	1	412.56122137	0.00553114
18	1	412.56121365	0.00767152
19	1	412.56115263	0.00440892
20	1	412.56112801	0.00443743
21	1	412.56102898	0.01947159
22	1	412.56101995	0.00438495
23	1	412.56097100	0.01945855
24	1	412.56096697	0.01945124
25	1	412.56096448	0.01944862
26	1	412.56095864	0.01947967
27	1	412.56095848	0.01934509
28	1	412.56095587	0.01833938
29	2	412.56095579	0.00436044
30	1	412.56056636	0.01957146
31	2	412.56056597	0.00435707
32	1	412.54817667	0.00424264
33	1	412.22764247	57790.860654
34	3	412.22756691	76083.857894
35	6	412.22755226	49833.500287
36	25	412.22755226	49833.500287
37	25	412.22755226	49833.500287

variance covariance structure
CSH
sex specific var cov structure

14:35 Friday, December 13, 2019 19

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
38	25	412.22755226	49833.500287
39	25	412.22755226	49833.500287

WARNING: Stopped because of too many likelihood evaluations.

Covariance Parameter Values At Last Iteration			
Cov Parm	Subject	Group	Estimate
UN(1,1)	ID		10.6317
Var(1)	ID	Sex F	0.4738
Var(2)	ID	Sex F	4.6135
Var(3)	ID	Sex F	1.9753
CSH	ID	Sex F	-0.5000
Var(1)	ID	Sex M	10.9976
Var(2)	ID	Sex M	3.4147
Var(3)	ID	Sex M	1.6505
CSH	ID	Sex M	0.6276

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 20

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Group Effect	Group
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	9
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	428.15860303	0.15573018
2	1	422.88292246	0.01277475
3	1	421.52787224	0.00523425

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 21

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
4	1	420.78123674	0.00278921
5	1	420.36339263	0.00218915
6	3	420.22114905	0.00125102
7	1	420.01839345	0.00039500
8	1	419.98073772	0.00016768
9	1	419.95709043	0.00000051
10	1	419.95702058	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	7.1642	2.0965	1.4087
2	2.0965	7.8938	1.4787
3	1.4087	1.4787	3.5640

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.2788	0.2788
2	0.2788	1.0000	0.2788
3	0.2788	0.2788	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	10.2444

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 22

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	17.4087	12.3409	11.6531
2	12.3409	18.1383	11.7231
3	11.6531	11.7231	13.8084

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.6945	0.7516
2	0.6945	1.0000	0.7408
3	0.7516	0.7408	1.0000

Covariance Parameter Estimates			
Cov Parm	Subject	Group	Estimate
UN(1,1)	ID		10.2444
Var(1)	ID	Group HIIT	7.8938
Var(2)	ID	Group HIIT	3.5640
Var(3)	ID	Group HIIT	7.1642
CSH	ID	Group HIIT	0.2788
Var(1)	ID	Group MICT	1.8663
Var(2)	ID	Group MICT	3.8370
Var(3)	ID	Group MICT	0.3446
CSH	ID	Group MICT	-0.1634

Fit Statistics	
-2 Res Log Likelihood	420.0
AIC (Smaller is Better)	438.0
AICC (Smaller is Better)	440.5
BIC (Smaller is Better)	450.6

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
8	58.42	<.0001

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 23

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.3834	1.0441	53	8.03	<.0001
Sex		M		5.4010	1.2166	53	4.44	<.0001
Days			90	1.5803	0.4232	53	3.73	0.0005
Days			93	1.3123	0.6458	53	2.03	0.0472
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.1556	1.4548	53	0.79	0.4305
Group*Days	HIIT		93	0.3357	1.4099	53	0.24	0.8127
Group*Days	HIIT		0	0.5713	1.3851	53	0.41	0.6817
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.2292	0.08199	53	-2.80	0.0072
MuscleGlycogen_cent				-0.00342	0.001877	53	-1.82	0.0741

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	4.90	0.0312
Days	2	53	7.76	0.0011
Group*Days	3	53	0.31	0.8194
Fatmass_cent	1	53	7.82	0.0072
MuscleGlycogen_cent	1	53	3.32	0.0741

**evaluating need for random slope
CSH
random slope and random intercept**

14:35 Friday, December 13, 2019 24

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	14
Columns in X	13
Columns in Z per Subject	4
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	453.10320401	6.60273051
2	1	440.77546802	9.40181051
3	1	434.31548711	7.99696081
4	1	430.35777773	4.04762661

**evaluating need for random slope
CSH
random slope and random intercept**

14:35 Friday, December 13, 2019 25

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
5	2	425.46569665	0.15164222
6	1	423.44656745	0.11854135
7	1	423.41008917	0.00013984
8	1	423.40984662	0.00000001

Convergence criteria met but final Hessian is not positive definite.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	11.8576	9.1220	9.3417
2	9.1220	11.4235	9.1691
3	9.3417	9.1691	11.9802

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7838	0.7838
2	0.7838	1.0000	0.7838
3	0.7838	0.7838	1.0000

Estimated G Matrix							
Row	Effect	ID	Days	Col1	Col2	Col3	Col4
1	Intercept	1		5.1663	-2.5906	-2.6760	-3.0036
2	Days	1	90	-2.5906	6.3346	2.8037	3.5651
3	Days	1	93	-2.6760	2.8037	1.6975	0.3972
4	Days	1	0	-3.0036	3.5651	0.3972	1.2824

Estimated G Correlation Matrix							
Row	Effect	ID	Days	Col1	Col2	Col3	Col4
1	Intercept	1		1.0000	-0.4528	-0.9036	-1.0000
2	Days	1	90	-0.4528	1.0000	0.8550	1.0000
3	Days	1	93	-0.9036	0.8550	1.0000	0.2692
4	Days	1	0	-1.0000	1.0000	0.2692	1.0000

**evaluating need for random slope
CSH
random slope and random intercept**

14:35 Friday, December 13, 2019 26

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2990	12.2592	9.2255
2	12.2592	17.7432	11.8724
3	9.2255	11.8724	13.4920

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.8299	0.7162
2	0.8299	1.0000	0.7673
3	0.7162	0.7673	1.0000

Estimated G matrix is not positive definite.

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	5.1663
UN(2,1)	ID	-2.5906
UN(2,2)	ID	6.3346
UN(3,1)	ID	-2.6760
UN(3,2)	ID	2.8037
UN(3,3)	ID	1.6975
UN(4,1)	ID	-3.0036
UN(4,2)	ID	3.5651
UN(4,3)	ID	0.3972
UN(4,4)	ID	1.2824
Var(1)	ID	11.4235
Var(2)	ID	11.9802
Var(3)	ID	11.8576
CSH	ID	0.7838

Fit Statistics	
-2 Res Log Likelihood	423.4
AIC (Smaller is Better)	451.4
AICC (Smaller is Better)	457.9
BIC (Smaller is Better)	471.0

evaluating need for random slope
CSH
random slope and random intercept

14:35 Friday, December 13, 2019 27

The Mixed Procedure

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
13	54.97	<.0001

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2982	1.1000	0	7.54	.
Sex		M		5.2972	1.2348	0	4.29	.
Days			90	1.6389	0.6302	53	2.60	0.0120
Days			93	1.1010	0.7928	53	1.39	0.1707
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3904	1.5771	0	0.88	.
Group*Days	HIIT		93	0.5446	1.3922	0	0.39	.
Group*Days	HIIT		0	0.9457	1.3128	0	0.72	.
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1235	0.08294	0	-1.49	.
MuscleGlycogen_cent				-0.00180	0.001988	0	-0.91	.

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	0	5.45	.
Days	2	53	8.87	0.0005
Group*Days	3	0	0.33	.
Fatmass_cent	1	0	2.22	.
MuscleGlycogen_cent	1	0	0.82	.

**evaluating need for random slope
CSH
only random intercept**

14:35 Friday, December 13, 2019 28

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	5
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	431.16081594	0.02237492
2	1	427.32700904	0.00417549
3	1	426.65916521	0.00035690
4	1	426.59530242	0.00083113

evaluating need for random slope
CSH
only random intercept

14:35 Friday, December 13, 2019 29

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
5	4	426.56690787	0.00035316
6	1	426.50502731	0.00034825
7	1	426.43977333	0.00026652
8	1	426.40324398	0.00024743
9	1	426.35974060	0.00034263
10	3	426.33905186	0.00040623
11	2	426.25496492	0.00396464
12	4	426.19476680	0.00132033
13	3	425.90819472	.
14	1	425.57331460	0.00004437
15	1	425.56702831	0.00000004
16	1	425.56702334	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	

**evaluating need for random slope
CSH
only random intercept**

14:35 Friday, December 13, 2019 30

The Mixed Procedure

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G matrix is not positive definite.

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	0
Var(1)	ID	17.0028
Var(2)	ID	13.6304
Var(3)	ID	12.2942
CSH	ID	0.7669

Fit Statistics	
-2 Res Log Likelihood	425.6
AIC (Smaller is Better)	433.6
AICC (Smaller is Better)	434.1
BIC (Smaller is Better)	439.2

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
3	52.81	<.0001

**evaluating need for random slope
CSH
only random intercept**

14:35 Friday, December 13, 2019 31

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2448	1.1060	53	7.45	<.0001
Sex		M		5.3643	1.2504	53	4.29	<.0001
Days			90	1.6259	0.7152	53	2.27	0.0271
Days			93	1.2138	0.7338	53	1.65	0.1040
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3506	1.5482	53	0.87	0.3869
Group*Days	HIIT		93	0.5255	1.3998	53	0.38	0.7089
Group*Days	HIIT		0	0.8443	1.3144	53	0.64	0.5234
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1492	0.08557	53	-1.74	0.0871
MuscleGlycogen_cent				-0.00258	0.001999	53	-1.29	0.2029

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	4.75	0.0338
Days	2	53	6.99	0.0020
Group*Days	3	53	0.34	0.7980
Fatmass_cent	1	53	3.04	0.0871
MuscleGlycogen_cent	1	53	1.66	0.2029

variance covariance structure
CSH random intercept only
hypothesis tests

14:35 Friday, December 13, 2019 32

Obs	ID	Sex	Group	Days	Fatmass	MuscleGlycogen	GIRperkgFFMperinsulin
1	1	M	HIIT	0	43.1473	517.538	2.6919
2	1	M	HIIT	90	44.4567	623.147	6.7656
3	1	M	HIIT	93	44.4567	726.587	6.1666
4	4	F	MICT	0	39.6760	506.638	5.1617
5	4	F	MICT	90	38.2872	766.439	6.2406
6	4	F	MICT	93	38.2448	628.304	4.8547
7	6	M	MICT	0	49.7871	519.121	4.6351
8	6	M	MICT	90	48.5135	553.229	4.6936
9	6	M	MICT	93	49.7170	832.371	4.4599
10	7	F	MICT	0	44.8836	585.228	13.7358

variance covariance structure
CSH random intercept only
hypothesis tests

14:35 Friday, December 13, 2019 33

Obs	ID	Sex	Group	Days	Fatmass	MuscleGlycogen	GIRperkgFFMperinsulin	Fatmass_cent	MuscleGlycogen_cent
1	1	M	HIIT	0	43.1473	517.538	2.6919	2.4673	-77.868
2	1	M	HIIT	90	44.4567	623.147	6.7656	3.7767	27.741
3	1	M	HIIT	93	44.4567	726.587	6.1666	3.7767	131.181
4	4	F	MICT	0	39.6760	506.638	5.1617	-1.0040	-88.768
5	4	F	MICT	90	38.2872	766.439	6.2406	-2.3928	171.033
6	4	F	MICT	93	38.2448	628.304	4.8547	-2.4352	32.898
7	6	M	MICT	0	49.7871	519.121	4.6351	9.1071	-76.285
8	6	M	MICT	90	48.5135	553.229	4.6936	7.8335	-42.176
9	6	M	MICT	93	49.7170	832.371	4.4599	9.0370	236.965
10	7	F	MICT	0	44.8836	585.228	13.7358	4.2036	-10.177

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structure	Unstructured
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	7
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	423.42323233	0.00033472
2	1	423.40988871	0.00000063
3	1	423.40984659	0.00000000

The Mixed Procedure

Convergence criteria met but final Hessian is not positive definite.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	2.8736	2.8340	-0.1998
2	2.8340	8.3183	2.4473
3	-0.1998	2.4473	4.0666

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.5796	-0.05846
2	0.5796	1.0000	0.4208
3	-0.05846	0.4208	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	9.4257

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2993	12.2596	9.2258
2	12.2596	17.7440	11.8730
3	9.2258	11.8730	13.4923

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.8299	0.7162
2	0.8299	1.0000	0.7673
3	0.7162	0.7673	1.0000

The Mixed Procedure

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	9.4257
UN(1,1)	ID	8.3183
UN(2,1)	ID	2.4473
UN(2,2)	ID	4.0666
UN(3,1)	ID	2.8340
UN(3,2)	ID	-0.1998
UN(3,3)	ID	2.8736

Fit Statistics	
-2 Res Log Likelihood	423.4
AIC (Smaller is Better)	437.4
AICC (Smaller is Better)	439.0
BIC (Smaller is Better)	447.2

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
6	54.97	<.0001

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2982	1.1000	53	7.54	<.0001
Sex		M		5.2972	1.2348	53	4.29	<.0001
Days			90	1.6389	0.6302	53	2.60	0.0120
Days			93	1.1010	0.7928	53	1.39	0.1707
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3904	1.5771	53	0.88	0.3820
Group*Days	HIIT		93	0.5446	1.3922	53	0.39	0.6972
Group*Days	HIIT		0	0.9457	1.3128	53	0.72	0.4745
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1235	0.08294	53	-1.49	0.1425
MuscleGlycogen_cent				-0.00180	0.001988	53	-0.91	0.3690

The Mixed Procedure

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	5.45	0.0234
Days	2	53	8.87	0.0005
Group*Days	3	53	0.33	0.8025
Fatmass_cent	1	53	2.22	0.1425
MuscleGlycogen_cent	1	53	0.82	0.3690

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Autoregressive
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	5
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	582.48908596	0.27920337
2	1	503.11157907	0.18122883
3	1	461.11834942	0.10390645
4	1	440.04916791	0.05083433
5	1	430.57249454	0.01976433

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
6	1	427.10125730	0.00531804
7	1	426.21059142	0.00105130
8	1	426.03332345	0.00021883
9	1	425.99830235	0.00001750
10	1	425.99572141	0.00000015
11	1	425.99570033	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	2.8686	0.4248	-0.9259
2	0.4248	3.6007	-1.0373
3	-0.9259	-1.0373	2.2607

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.1322	-0.3636
2	0.1322	1.0000	-0.3636
3	-0.3636	-0.3636	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	11.2284

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	14.0970	11.6533	10.3026
2	11.6533	14.8291	10.1911
3	10.3026	10.1911	13.4892

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.8060	0.7471
2	0.8060	1.0000	0.7206
3	0.7471	0.7206	1.0000

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	11.2284
Var(1)	ID	3.6007
Var(2)	ID	2.2607
Var(3)	ID	2.8686
ARH(1)	ID	-0.3636

Fit Statistics	
-2 Res Log Likelihood	426.0
AIC (Smaller is Better)	436.0
AICC (Smaller is Better)	436.8
BIC (Smaller is Better)	443.0

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
4	52.38	<.0001

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.1779	1.1644	53	7.02	<.0001
Sex		M		5.6011	1.3156	53	4.26	<.0001
Days			90	1.6229	0.6358	53	2.55	0.0136
Days			93	1.1452	0.7781	53	1.47	0.1470
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.2344	1.4499	53	0.85	0.3984
Group*Days	HIIT		93	0.4466	1.3948	53	0.32	0.7501
Group*Days	HIIT		0	0.8118	1.4040	53	0.58	0.5656
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1518	0.08696	53	-1.75	0.0866
MuscleGlycogen_cent				-0.00216	0.002020	53	-1.07	0.2902

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	3.66	0.0611
Days	2	53	8.37	0.0007
Group*Days	3	53	0.31	0.8202
Fatmass_cent	1	53	3.05	0.0866
MuscleGlycogen_cent	1	53	1.14	0.2902

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Ante-dependence
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	6
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	473.55631403	0.17980665
2	1	471.58519019	0.17377530
3	1	470.62046325	0.17086072
4	1	470.14356051	0.16942653
5	1	469.90649827	0.16871497

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
6	1	469.78831701	0.16836080
7	1	469.75880770	0.16827234
8	1	469.71457224	0.16814055
9	1	469.69246721	0.16803141
10	1	469.68970240	0.16809455
11	1	469.68003969	0.16804146
12	1	469.67520674	0.17159387
13	1	469.67293988	0.15920479
14	1	469.67220713	0.19537630
15	1	469.67212866	0.14937300
16	1	469.67177711	0.14125233
17	1	469.66991444	0.13011925
18	1	469.66869784	69.46126882
19	1	469.66762832	0.12929369
20	1	469.66681993	69.45454263
21	1	469.66681270	69.45733371

WARNING: Stopped because of infinite likelihood.

Covariance Parameter Values At Last Iteration		
Cov Parm	Subject	Estimate
UN(1,1)	ID	12.0031
Var(1)	ID	5.4192
Var(2)	ID	0.7079
Var(3)	ID	0.3955
Rho(1)	ID	-0.3983
Rho(2)	ID	-1.0000

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	5
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	431.16081594	0.02237492
2	1	427.32700904	0.00417549
3	1	426.65916521	0.00035690
4	1	426.59530242	0.00083113
5	4	426.56690787	0.00035316

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
6	1	426.50502731	0.00034825
7	1	426.43977333	0.00026652
8	1	426.40324398	0.00024743
9	1	426.35974060	0.00034263
10	3	426.33905186	0.00040623
11	2	426.25496492	0.00396464
12	4	426.19476680	0.00132033
13	3	425.90819472	.
14	1	425.57331460	0.00004437
15	1	425.56702831	0.00000004
16	1	425.56702334	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G matrix is not positive definite.

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	0
Var(1)	ID	17.0028
Var(2)	ID	13.6304
Var(3)	ID	12.2942
CSH	ID	0.7669

Fit Statistics	
-2 Res Log Likelihood	425.6
AIC (Smaller is Better)	433.6
AICC (Smaller is Better)	434.1
BIC (Smaller is Better)	439.2

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
3	52.81	<.0001

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2448	1.1060	53	7.45	<.0001
Sex		M		5.3643	1.2504	53	4.29	<.0001
Days			90	1.6259	0.7152	53	2.27	0.0271
Days			93	1.2138	0.7338	53	1.65	0.1040
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3506	1.5482	53	0.87	0.3869
Group*Days	HIIT		93	0.5255	1.3998	53	0.38	0.7089
Group*Days	HIIT		0	0.8443	1.3144	53	0.64	0.5234
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1492	0.08557	53	-1.74	0.0871
MuscleGlycogen_cent				-0.00258	0.001999	53	-1.29	0.2029

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	4.75	0.0338
Days	2	53	6.99	0.0020
Group*Days	3	53	0.34	0.7980
Fatmass_cent	1	53	3.04	0.0871
MuscleGlycogen_cent	1	53	1.66	0.2029

variance covariance structure
CSH
sex specific var cov structure

14:35 Friday, December 13, 2019 48

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Group Effect	Sex
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	9
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	436.18120045	0.96814715
2	1	432.00035593	0.02464455
3	1	429.23570429	0.01383097

variance covariance structure
CSH
sex specific var cov structure

14:35 Friday, December 13, 2019 49

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
4	1	426.52909417	0.02089237
5	1	424.86569985	0.03151411
6	1	415.31262546	0.11631561
7	1	413.07052632	0.01482593
8	1	412.66224673	0.00628606
9	1	412.59968256	0.00573874
10	1	412.56863929	0.00547950
11	1	412.56476041	0.00544771
12	1	412.56282218	0.00543184
13	1	412.56185337	0.00542224
14	1	412.56173231	0.00540749
15	1	412.56149083	0.00539393
16	1	412.56124989	0.00510536
17	1	412.56122137	0.00553114
18	1	412.56121365	0.00767152
19	1	412.56115263	0.00440892
20	1	412.56112801	0.00443743
21	1	412.56102898	0.01947159
22	1	412.56101995	0.00438495
23	1	412.56097100	0.01945855
24	1	412.56096697	0.01945124
25	1	412.56096448	0.01944862
26	1	412.56095864	0.01947967
27	1	412.56095848	0.01934509
28	1	412.56095587	0.01833938
29	2	412.56095579	0.00436044
30	1	412.56056636	0.01957146
31	2	412.56056597	0.00435707
32	1	412.54817667	0.00424264
33	1	412.22764247	57790.860654
34	3	412.22756691	76083.857894
35	6	412.22755226	49833.500287
36	25	412.22755226	49833.500287
37	25	412.22755226	49833.500287

variance covariance structure
CSH
sex specific var cov structure

14:35 Friday, December 13, 2019 50

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
38	25	412.22755226	49833.500287
39	25	412.22755226	49833.500287

WARNING: Stopped because of too many likelihood evaluations.

Covariance Parameter Values At Last Iteration			
Cov Parm	Subject	Group	Estimate
UN(1,1)	ID		10.6317
Var(1)	ID	Sex F	0.4738
Var(2)	ID	Sex F	4.6135
Var(3)	ID	Sex F	1.9753
CSH	ID	Sex F	-0.5000
Var(1)	ID	Sex M	10.9976
Var(2)	ID	Sex M	3.4147
Var(3)	ID	Sex M	1.6505
CSH	ID	Sex M	0.6276

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 51

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Group Effect	Group
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	9
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	428.15860303	0.15573018
2	1	422.88292246	0.01277475
3	1	421.52787224	0.00523425

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 52

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
4	1	420.78123674	0.00278921
5	1	420.36339263	0.00218915
6	3	420.22114905	0.00125102
7	1	420.01839345	0.00039500
8	1	419.98073772	0.00016768
9	1	419.95709043	0.00000051
10	1	419.95702058	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	7.1642	2.0965	1.4087
2	2.0965	7.8938	1.4787
3	1.4087	1.4787	3.5640

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.2788	0.2788
2	0.2788	1.0000	0.2788
3	0.2788	0.2788	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	10.2444

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 53

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	17.4087	12.3409	11.6531
2	12.3409	18.1383	11.7231
3	11.6531	11.7231	13.8084

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.6945	0.7516
2	0.6945	1.0000	0.7408
3	0.7516	0.7408	1.0000

Covariance Parameter Estimates			
Cov Parm	Subject	Group	Estimate
UN(1,1)	ID		10.2444
Var(1)	ID	Group HIIT	7.8938
Var(2)	ID	Group HIIT	3.5640
Var(3)	ID	Group HIIT	7.1642
CSH	ID	Group HIIT	0.2788
Var(1)	ID	Group MICT	1.8663
Var(2)	ID	Group MICT	3.8370
Var(3)	ID	Group MICT	0.3446
CSH	ID	Group MICT	-0.1634

Fit Statistics	
-2 Res Log Likelihood	420.0
AIC (Smaller is Better)	438.0
AICC (Smaller is Better)	440.5
BIC (Smaller is Better)	450.6

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
8	58.42	<.0001

variance covariance structure
CSH
Group specific var cov structure

14:35 Friday, December 13, 2019 54

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.3834	1.0441	53	8.03	<.0001
Sex		M		5.4010	1.2166	53	4.44	<.0001
Days			90	1.5803	0.4232	53	3.73	0.0005
Days			93	1.3123	0.6458	53	2.03	0.0472
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.1556	1.4548	53	0.79	0.4305
Group*Days	HIIT		93	0.3357	1.4099	53	0.24	0.8127
Group*Days	HIIT		0	0.5713	1.3851	53	0.41	0.6817
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.2292	0.08199	53	-2.80	0.0072
MuscleGlycogen_cent				-0.00342	0.001877	53	-1.82	0.0741

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	4.90	0.0312
Days	2	53	7.76	0.0011
Group*Days	3	53	0.31	0.8194
Fatmass_cent	1	53	7.82	0.0072
MuscleGlycogen_cent	1	53	3.32	0.0741

**evaluating need for random slope
CSH
random slope and random intercept**

14:35 Friday, December 13, 2019 55

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	14
Columns in X	13
Columns in Z per Subject	4
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	453.10320401	6.60273051
2	1	440.77546802	9.40181051
3	1	434.31548711	7.99696081
4	1	430.35777773	4.04762661

**evaluating need for random slope
CSH
random slope and random intercept**

14:35 Friday, December 13, 2019 56

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
5	2	425.46569665	0.15164222
6	1	423.44656745	0.11854135
7	1	423.41008917	0.00013984
8	1	423.40984662	0.00000001

Convergence criteria met but final Hessian is not positive definite.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	11.8576	9.1220	9.3417
2	9.1220	11.4235	9.1691
3	9.3417	9.1691	11.9802

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7838	0.7838
2	0.7838	1.0000	0.7838
3	0.7838	0.7838	1.0000

Estimated G Matrix							
Row	Effect	ID	Days	Col1	Col2	Col3	Col4
1	Intercept	1		5.1663	-2.5906	-2.6760	-3.0036
2	Days	1	90	-2.5906	6.3346	2.8037	3.5651
3	Days	1	93	-2.6760	2.8037	1.6975	0.3972
4	Days	1	0	-3.0036	3.5651	0.3972	1.2824

Estimated G Correlation Matrix							
Row	Effect	ID	Days	Col1	Col2	Col3	Col4
1	Intercept	1		1.0000	-0.4528	-0.9036	-1.0000
2	Days	1	90	-0.4528	1.0000	0.8550	1.0000
3	Days	1	93	-0.9036	0.8550	1.0000	0.2692
4	Days	1	0	-1.0000	1.0000	0.2692	1.0000

**evaluating need for random slope
CSH
random slope and random intercept**

14:35 Friday, December 13, 2019 57

The Mixed Procedure

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2990	12.2592	9.2255
2	12.2592	17.7432	11.8724
3	9.2255	11.8724	13.4920

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.8299	0.7162
2	0.8299	1.0000	0.7673
3	0.7162	0.7673	1.0000

Estimated G matrix is not positive definite.

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	5.1663
UN(2,1)	ID	-2.5906
UN(2,2)	ID	6.3346
UN(3,1)	ID	-2.6760
UN(3,2)	ID	2.8037
UN(3,3)	ID	1.6975
UN(4,1)	ID	-3.0036
UN(4,2)	ID	3.5651
UN(4,3)	ID	0.3972
UN(4,4)	ID	1.2824
Var(1)	ID	11.4235
Var(2)	ID	11.9802
Var(3)	ID	11.8576
CSH	ID	0.7838

Fit Statistics	
-2 Res Log Likelihood	423.4
AIC (Smaller is Better)	451.4
AICC (Smaller is Better)	457.9
BIC (Smaller is Better)	471.0

evaluating need for random slope
CSH
random slope and random intercept

14:35 Friday, December 13, 2019 58

The Mixed Procedure

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
13	54.97	<.0001

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2982	1.1000	0	7.54	.
Sex		M		5.2972	1.2348	0	4.29	.
Days			90	1.6389	0.6302	53	2.60	0.0120
Days			93	1.1010	0.7928	53	1.39	0.1707
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3904	1.5771	0	0.88	.
Group*Days	HIIT		93	0.5446	1.3922	0	0.39	.
Group*Days	HIIT		0	0.9457	1.3128	0	0.72	.
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1235	0.08294	0	-1.49	.
MuscleGlycogen_cent				-0.00180	0.001988	0	-0.91	.

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	0	5.45	.
Days	2	53	8.87	0.0005
Group*Days	3	0	0.33	.
Fatmass_cent	1	0	2.22	.
MuscleGlycogen_cent	1	0	0.82	.

**evaluating need for random slope
CSH
only random intercept**

14:35 Friday, December 13, 2019 59

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	5
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	431.16081594	0.02237492
2	1	427.32700904	0.00417549
3	1	426.65916521	0.00035690
4	1	426.59530242	0.00083113

evaluating need for random slope
CSH
only random intercept

14:35 Friday, December 13, 2019 60

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
5	4	426.56690787	0.00035316
6	1	426.50502731	0.00034825
7	1	426.43977333	0.00026652
8	1	426.40324398	0.00024743
9	1	426.35974060	0.00034263
10	3	426.33905186	0.00040623
11	2	426.25496492	0.00396464
12	4	426.19476680	0.00132033
13	3	425.90819472	.
14	1	425.57331460	0.00004437
15	1	425.56702831	0.00000004
16	1	425.56702334	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	

**evaluating need for random slope
CSH
only random intercept**

14:35 Friday, December 13, 2019 61

The Mixed Procedure

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G matrix is not positive definite.

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	0
Var(1)	ID	17.0028
Var(2)	ID	13.6304
Var(3)	ID	12.2942
CSH	ID	0.7669

Fit Statistics	
-2 Res Log Likelihood	425.6
AIC (Smaller is Better)	433.6
AICC (Smaller is Better)	434.1
BIC (Smaller is Better)	439.2

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
3	52.81	<.0001

evaluating need for random slope
CSH
only random intercept

14:35 Friday, December 13, 2019 62

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2448	1.1060	53	7.45	<.0001
Sex		M		5.3643	1.2504	53	4.29	<.0001
Days			90	1.6259	0.7152	53	2.27	0.0271
Days			93	1.2138	0.7338	53	1.65	0.1040
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3506	1.5482	53	0.87	0.3869
Group*Days	HIIT		93	0.5255	1.3998	53	0.38	0.7089
Group*Days	HIIT		0	0.8443	1.3144	53	0.64	0.5234
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1492	0.08557	53	-1.74	0.0871
MuscleGlycogen_cent				-0.00258	0.001999	53	-1.29	0.2029

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	4.75	0.0338
Days	2	53	6.99	0.0020
Group*Days	3	53	0.34	0.7980
Fatmass_cent	1	53	3.04	0.0871
MuscleGlycogen_cent	1	53	1.66	0.2029

The Mixed Procedure

Model Information	
Data Set	WORK.EXERCISE_D
Dependent Variable	GIRperkgFFMperinsulin
Covariance Structures	Unstructured, Heterogeneous Compound Symmetry
Subject Effects	ID, ID
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
ID	30	1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 7 8 9
Group	2	HIIT MICT
Sex	2	F M
Days	3	90 93 0

Dimensions	
Covariance Parameters	5
Columns in X	13
Columns in Z per Subject	1
Subjects	30
Max Obs per Subject	3

Number of Observations	
Number of Observations Read	93
Number of Observations Used	89
Number of Observations Not Used	4

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	478.37905891	
1	2	431.16081594	0.02237492
2	1	427.32700904	0.00417549
3	1	426.65916521	0.00035690
4	1	426.59530242	0.00083113

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
5	4	426.56690787	0.00035316
6	1	426.50502731	0.00034825
7	1	426.43977333	0.00026652
8	1	426.40324398	0.00024743
9	1	426.35974060	0.00034263
10	3	426.33905186	0.00040623
11	2	426.25496492	0.00396464
12	4	426.19476680	0.00132033
13	3	425.90819472	.
14	1	425.57331460	0.00004437
15	1	425.56702831	0.00000004
16	1	425.56702334	0.00000000

Convergence criteria met.

Estimated R Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated R Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G Matrix			
Row	Effect	ID	Col1
1	Intercept	1	

The Mixed Procedure

Estimated G Correlation Matrix			
Row	Effect	ID	Col1
1	Intercept	1	1.0000

Estimated V Matrix for ID 1			
Row	Col1	Col2	Col3
1	12.2942	11.0875	9.9272
2	11.0875	17.0028	11.6745
3	9.9272	11.6745	13.6304

Estimated V Correlation Matrix for ID 1			
Row	Col1	Col2	Col3
1	1.0000	0.7669	0.7669
2	0.7669	1.0000	0.7669
3	0.7669	0.7669	1.0000

Estimated G matrix is not positive definite.

Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	ID	0
Var(1)	ID	17.0028
Var(2)	ID	13.6304
Var(3)	ID	12.2942
CSH	ID	0.7669

Fit Statistics	
-2 Res Log Likelihood	425.6
AIC (Smaller is Better)	433.6
AICC (Smaller is Better)	434.1
BIC (Smaller is Better)	439.2

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
3	52.81	<.0001

The Mixed Procedure

Solution for Fixed Effects								
Effect	Group	Sex	Days	Estimate	Standard Error	DF	t Value	Pr > |t|
Sex		F		8.2448	1.1060	53	7.45	<.0001
Sex		M		5.3643	1.2504	53	4.29	<.0001
Days			90	1.6259	0.7152	53	2.27	0.0271
Days			93	1.2138	0.7338	53	1.65	0.1040
Days			0	0	.	.	.	.
Group*Days	HIIT		90	1.3506	1.5482	53	0.87	0.3869
Group*Days	HIIT		93	0.5255	1.3998	53	0.38	0.7089
Group*Days	HIIT		0	0.8443	1.3144	53	0.64	0.5234
Group*Days	MICT		90	0	.	.	.	.
Group*Days	MICT		93	0	.	.	.	.
Group*Days	MICT		0	0	.	.	.	.
Fatmass_cent				-0.1492	0.08557	53	-1.74	0.0871
MuscleGlycogen_cent				-0.00258	0.001999	53	-1.29	0.2029

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Sex	1	53	4.75	0.0338
Days	2	53	6.99	0.0020
Group*Days	3	53	0.34	0.7980
Fatmass_cent	1	53	3.04	0.0871
MuscleGlycogen_cent	1	53	1.66	0.2029

Coefficients for between days						
Effect	Group	Sex	Days	Row1	Row2	Row3
Sex		F				
Sex		M				
Days			90	1		1
Days			93	-1	1	
Days			0		-1	-1
Group*Days	HIIT		90	0.5		0.5
Group*Days	HIIT		93	-0.5	0.5	
Group*Days	HIIT		0		-0.5	-0.5
Group*Days	MICT		90	0.5		0.5

The Mixed Procedure

Coefficients for betweendays						
Effect	Group	Sex	Days	Row1	Row2	Row3
Group*Days	MICT		93	-0.5	0.5	
Group*Days	MICT		0		-0.5	-0.5
Fatmass_cent						
MuscleGlycogen_cent						

Coefficients for day93 vs day0				
Effect	Group	Sex	Days	Row1
Sex		F		
Sex		M		
Days			90	
Days			93	1
Days			0	-1
Group*Days	HIIT		90	
Group*Days	HIIT		93	0.5
Group*Days	HIIT		0	-0.5
Group*Days	MICT		90	
Group*Days	MICT		93	0.5
Group*Days	MICT		0	-0.5
Fatmass_cent				
MuscleGlycogen_cent				

Coefficients for day93 vs day90				
Effect	Group	Sex	Days	Row1
Sex		F		
Sex		M		
Days			90	1
Days			93	-1
Days			0	
Group*Days	HIIT		90	0.5
Group*Days	HIIT		93	-0.5
Group*Days	HIIT		0	
Group*Days	MICT		90	0.5
Group*Days	MICT		93	-0.5
Group*Days	MICT		0	

**variance covariance structure
CSH random intercept only
hypothesis tests**

14:35 Friday, December 13, 2019 68

The Mixed Procedure

Coefficients for day93 vs day90				
Effect	Group	Sex	Days	Row1
Fatmass_cent				
MuscleGlycogen_cent				

Coefficients for day90 vs day0				
Effect	Group	Sex	Days	Row1
Sex		F		
Sex		M		
Days			90	1
Days			93	
Days			0	-1
Group*Days	HIIT		90	0.5
Group*Days	HIIT		93	
Group*Days	HIIT		0	-0.5
Group*Days	MICT		90	0.5
Group*Days	MICT		93	
Group*Days	MICT		0	-0.5
Fatmass_cent				
MuscleGlycogen_cent				

Coefficients for all group*time interact					
Effect	Group	Sex	Days	Row1	Row2
Sex		F			
Sex		M			
Days			90		
Days			93		
Days			0		
Group*Days	HIIT		90	1	1
Group*Days	HIIT		93	-1	
Group*Days	HIIT		0		-1
Group*Days	MICT		90	-1	-1
Group*Days	MICT		93	1	
Group*Days	MICT		0		1
Fatmass_cent					
MuscleGlycogen_cent					

The Mixed Procedure

Contrasts				
Label	Num DF	Den DF	F Value	Pr > F
betweendays	2	53	6.99	0.0020
day93 vs day0	1	53	2.84	0.0977
day93 vs day90	1	53	1.82	0.1836
day90 vs day0	1	53	13.97	0.0005
all group*time interact	2	53	0.34	0.7137