

```
* Encoding: UTF-8.

*Select those who completed the 16 week programme and those for whom the number of recorded sessions is 1 or more -
this is because there are a large number of people in the dataset with a 'zero' entered.
*Those who have completed the programme shouldn't have a zero entry so that is clearly in error.
USE ALL.
COMPUTE filter_$=((Cohort_Group = 1 | Cohort_Group = 2 | Cohort_Group = 3) & (status_code_2 = 4 |
    status_code_2 = 6) & (Sessions_completed_16wk >= 1)).
VARIABLE LABELS filter_$ '(Cohort_Group = 1 | Cohort_Group = 2 | Cohort_Group = 3) & '+
    '(status_code_2 = 4 | status_code_2 = 6) & (Sessions_completed_16wk >= 1) (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

*Multi-level model in SPSS but with no data structure entered.
*This is the same model as the multiple regression I ran before (see end of output #5a).
DATASET ACTIVATE DataSet1.
MIXED Sessions_completed_16wk WITH Age_at_ref2 Gender2 Cohort_Dummy2 Cohort_Dummy3 LHB2_Dummy_Powys
    LHB2_Dummy_Swansea LHB2_Dummy_AneurinB LHB2_Dummy_Cardiff LHB2_Dummy_CwmTaf LHB2_Dummy_HywelDda
    IMD_Quintile2_dummy IMD_Quintile3_dummy IMD_Quintile4_dummy IMD_Quintile5_dummy
    Pathway_5_dummy_generic_level4 Pathway_5_dummy_generic_back Pathway_5_dummy_generic_MH
    Pathway_5_dummy_generic_weight
/CRITERIA=DFMETHOD(SATTERTHWAITE) CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
    SINGULAR(0.000000000001) HCONVERGE(0, ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
/FIXED=Age_at_ref2 Gender2 Cohort_Dummy2 Cohort_Dummy3 LHB2_Dummy_Powys LHB2_Dummy_Swansea
    LHB2_Dummy_AneurinB LHB2_Dummy_Cardiff LHB2_Dummy_CwmTaf LHB2_Dummy_HywelDda IMD_Quintile2_dummy
IMD_Quintile3_dummy
    IMD_Quintile4_dummy IMD_Quintile5_dummy
    Pathway_5_dummy_generic_level4 Pathway_5_dummy_generic_back Pathway_5_dummy_generic_MH
    Pathway_5_dummy_generic_weight | SSTYPE(3)
/METHOD=ML
/PRINT=SOLUTION TESTCOV.
```

Mixed Model Analysis

Notes	
Output Created	28-JUN-2022 23:10:19
Comments	
Input	Data
	S:\Quant\data cleaning\V2\KN\V3\Analysis\An alysis 27.06.2022\NERS_NS.sav
	Active Dataset
	DataSet1

	Filter	(Cohort_Group = 1 Cohort_Group = 2 Cohort_Group = 3) & (status_code_2 = 4 status_code_2 = 6) & (Sessions_completed_16wk >= 1) (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5906
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Syntax

```
MIXED
Sessions_completed_16wk
WITH Age_at_ref2 Gender2
Cohort_Dummy2
Cohort_Dummy3
LHB2_Dummy_Powys
    LHB2_Dummy_Swansea
LHB2_Dummy_AneurinB
LHB2_Dummy_Cardiff
LHB2_Dummy_CwmTaf
LHB2_Dummy_HywelDda
    IMD_Quintile2_dummy
IMD_Quintile3_dummy
IMD_Quintile4_dummy
IMD_Quintile5_dummy

Pathway_5_dummy_generic_level4
Pathway_5_dummy_generic_back
Pathway_5_dummy_generic_MH

Pathway_5_dummy_generic_weight

/CRITERIA=DFMETHOD(SATTERTHWAITE) CIN(95)
MXITER(100) MXSTEP(10)
SCORING(1)

SINGULAR(0.000000000001)
HCONVERGE(0, ABSOLUTE)
LCONVERGE(0, ABSOLUTE)
PCONVERGE(0.000001, ABSOLUTE)
/FIXED=Age_at_ref2 Gender2
Cohort_Dummy2
Cohort_Dummy3
```

		LHB2_Dummy_Powys LHB2_Dummy_Swansea LHB2_Dummy_AneurinB LHB2_Dummy_Cardiff LHB2_Dummy_CwmTaf LHB2_Dummy_HywelDda IMD_Quintile2_dummy IMD_Quintile3_dummy IMD_Quintile4_dummy IMD_Quintile5_dummy Pathway_5_dummy_generic_level4 Pathway_5_dummy_generic_back Pathway_5_dummy_generic_MH Pathway_5_dummy_generic_weight SSTYPE(3) /METHOD=ML /PRINT=SOLUTION TESTCOV.
Resources	Processor Time	00:00:00.23
	Elapsed Time	00:00:00.23

Model Dimension^a

		Number of Levels	Number of Parameters
Fixed Effects	Intercept	1	1
	Age_at_ref2	1	1
	Gender2	1	1
	Cohort_Dummy2	1	1
	Cohort_Dummy3	1	1
	LHB2_Dummy_Powys	1	1
	LHB2_Dummy_Swansea	1	1
	LHB2_Dummy_AneurinB	1	1
	LHB2_Dummy_Cardiff	1	1

	LHB2_Dummy_CwmTaf	1	1
	LHB2_Dummy_HywelDda	1	1
	IMD_Quintile2_dummy	1	1
	IMD_Quintile3_dummy	1	1
	IMD_Quintile4_dummy	1	1
	IMD_Quintile5_dummy	1	1
	Pathway_5_dummy_generic_level4	1	1
	Pathway_5_dummy_generic_back	1	1
	Pathway_5_dummy_generic_MH	1	1
	Pathway_5_dummy_generic_weight	1	1
Residual			1
Total		19	20

a. Dependent Variable: Sessions_completed_16wk.

Information Criteria^a

-2 Log Likelihood	42878.618
Akaike's Information Criterion (AIC)	42918.618
Hurvich and Tsai's Criterion (AICC)	42918.767
Bozdogan's Criterion (CAIC)	43071.431
Schwarz's Bayesian Criterion (BIC)	43051.431

The information criteria are displayed in smaller-is-better form.

a. Dependent Variable:

Sessions_completed_16wk.

Fixed Effects

Type III Tests of Fixed Effects^a

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	5657	709.463	<.001
Age_at_ref2	1	5657.000	1.700	.192
Gender2	1	5657	15.296	<.001
Cohort_Dummy2	1	5657	148.069	<.001
Cohort_Dummy3	1	5657.000	16.211	<.001
LHB2_Dummy_Powys	1	5657	74.717	<.001
LHB2_Dummy_Swansea	1	5657	22.263	<.001
LHB2_Dummy_AneurinB	1	5657.000	1.814	.178
LHB2_Dummy_Cardiff	1	5657.000	33.115	<.001
LHB2_Dummy_CwmTaf	1	5657.000	14.050	<.001
LHB2_Dummy_HywelDda	1	5657	2.626	.105
IMD_Quintile2_dummy	1	5657	4.512	.034
IMD_Quintile3_dummy	1	5657	.126	.723
IMD_Quintile4_dummy	1	5657	12.699	<.001
IMD_Quintile5_dummy	1	5657.000	3.567	.059
Pathway_5_dummy_generic_level4	1	5657.000	20.572	<.001
Pathway_5_dummy_generic_back	1	5657.000	.178	.673
Pathway_5_dummy_generic_MH	1	5657.000	.432	.511
Pathway_5_dummy_generic_weight	1	5657.000	.208	.649

a. Dependent Variable: Sessions_completed_16wk.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	24.870324	.933720	5657	26.636	<.001	23.039875	26.700773
Age_at_ref2	.013517	.010367	5657.000	1.304	.192	-.006806	.033840
Gender2	-1.166079	.298157	5657	-3.911	<.001	-1.750581	-.581577
Cohort_Dummy2	-4.059728	.333629	5657	-12.168	<.001	-4.713769	-3.405686
Cohort_Dummy3	2.390350	.593692	5657.000	4.026	<.001	1.226485	3.554215
LHB2_Dummy_Powys	5.333384	.617012	5657	8.644	<.001	4.123804	6.542964

LHB2_Dummy_Swansea	2.611161	.553409	5657	4.718	<.001	1.526268	3.696055
LHB2_Dummy_AneurinB	.567613	.421400	5657.000	1.347	.178	-.258493	1.393719
LHB2_Dummy_Cardiff	-2.809802	.488272	5657.000	-5.755	<.001	-3.767002	-1.852601
LHB2_Dummy_CwmTaf	2.030328	.541666	5657.000	3.748	<.001	.968455	3.092202
LHB2_Dummy_HywelDda	.825341	.509337	5657	1.620	.105	-.173156	1.823837
IMD_Quintile2_dummy	-1.053232	.495865	5657	-2.124	.034	-2.025317	-.081147
IMD_Quintile3_dummy	-.171371	.483307	5657	-.355	.723	-1.118837	.776095
IMD_Quintile4_dummy	-1.716261	.481605	5657	-3.564	<.001	-2.660392	-.772130
IMD_Quintile5_dummy	-.931951	.493445	5657.000	-1.889	.059	-1.899293	.035390
Pathway_5_dummy_generic_level4	-1.853813	.408725	5657.000	-4.536	<.001	-2.655071	-1.052555
Pathway_5_dummy_generic_back	.326734	.773666	5657.000	.422	.673	-1.189948	1.843416
Pathway_5_dummy_generic_MH	-.435642	.663117	5657.000	-.657	.511	-1.735605	.864321
Pathway_5_dummy_generic_weight	.207681	.455726	5657.000	.456	.649	-.685716	1.101079

a. Dependent Variable: Sessions_completed_16wk.

Covariance Parameters

Estimates of Covariance Parameters^a

Parameter	Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Residual	114.648159	2.155703	53.184	.000	110.499964	118.952078

a. Dependent Variable: Sessions_completed_16wk.

*First just included the level 2 predictor so that we can model the degree of clustering.

```

MIXED Sessions_completed_16wk
  /CRITERIA=DFMETHOD(SATTERTHWAITE) CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
  SINGULAR(0.000000000001) HCONVERGE(0, ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
  /FIXED=| SSTYPE(3)
  /METHOD=ML
  /PRINT=G SOLUTION TESTCOV
  /RANDOM=INTERCEPT | SUBJECT(Local_Authority) COVTYPE(VC).

```

Mixed Model Analysis

Notes		
Output Created		28-JUN-2022 23:10:19
Comments		
Input	Data	S:\Quant\data cleaning\V2\KNIV3\Analysis\An alysis 27.06.2022\NERS_NS.sav
	Active Dataset	DataSet1
	Filter	(Cohort_Group = 1 Cohort_Group = 2 Cohort_Group = 3) & (status_code_2 = 4 status_code_2 = 6) & (Sessions_completed_16wk >= 1) (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5906
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Syntax		MIXED Sessions_completed_16wk /CRITERIA=DFMETHOD(SATT ERTHWAITE) CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001) HCONVERGE(0, ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE) /FIXED= SSTYPE(3) /METHOD=ML /PRINT=G SOLUTION TESTCOV /RANDOM=INTERCEPT SUBJECT(Local_Authority) COVTYPE(VC).
Resources	Processor Time	00:00:00.20
	Elapsed Time	00:00:00.21

Model Dimension^a

		Number of Levels	Covariance Structure	Number of Parameters	Subject Variables
Fixed Effects	Intercept	1		1	
Random Effects	Intercept ^b	1	Variance Components	1	Local_Authority
Residual				1	
Total		2		3	

a. Dependent Variable: Sessions_completed_16wk.

b. As of version 11.5, the syntax rules for the RANDOM subcommand have changed. Your command syntax may yield results that differ from those produced by prior versions. If you are using version 11 syntax, please consult the current syntax reference guide for more information.

Information Criteria^a

-2 Log Likelihood	44436.728
Akaike's Information Criterion (AIC)	44442.728
Hurvich and Tsai's Criterion (AICC)	44442.732
Bozdogan's Criterion (CAIC)	44465.779
Schwarz's Bayesian Criterion (BIC)	44462.779

The information criteria are displayed in smaller-is-better form.

a. Dependent Variable:

Sessions_completed_16wk.

Fixed Effects

Type III Tests of Fixed Effects^a

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	21.878	661.274	<.001

a. Dependent Variable: Sessions_completed_16wk.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	22.887973	.890055	21.878	25.715	<.001	21.041516	24.734429

a. Dependent Variable: Sessions_completed_16wk.

Covariance Parameters

Estimates of Covariance Parameters^a

Parameter	Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval
-----------	----------	------------	--------	------	-------------------------

					Lower Bound	Upper Bound
Residual	106.956823	1.971930	54.240	.000	103.160908	110.892413
Intercept [subject = Local_Authority]	Variance 16.945363	5.268718	3.216	.001	9.212808	31.168060

a. Dependent Variable: Sessions_completed_16wk.

Random Effect Covariance Structure
(G)^a

	Intercept Local_Authority
Intercept Local_Authority	16.945363

Variance Components

a. Dependent Variable:

Sessions_completed_16wk.

```

*Next, added in the level 1 predictors.
MIXED Sessions_completed_16wk WITH Age_at_ref2 Gender2 Cohort_Dummy2 Cohort_Dummy3 IMD_Quintile2_dummy
IMD_Quintile3_dummy IMD_Quintile4_dummy IMD_Quintile5_dummy
Pathway_5_dummy_generic_level4 Pathway_5_dummy_generic_back Pathway_5_dummy_generic_MH
Pathway_5_dummy_generic_weight
/CRITERIA=DFMETHOD(SATTERTHWAITE) CIN(95) MXITER(100) MXSTEP(10) SCORING(1)
SINGULAR(0.000000000001) HCONVERGE(0, ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
/FIXED=Age_at_ref2 Gender2 Cohort_Dummy2 Cohort_Dummy3 IMD_Quintile2_dummy IMD_Quintile3_dummy
IMD_Quintile4_dummy IMD_Quintile5_dummy Pathway_5_dummy_generic_level4
Pathway_5_dummy_generic_back Pathway_5_dummy_generic_MH Pathway_5_dummy_generic_weight | SSTYPE(3)
/METHOD=ML
/PRINT=G SOLUTION TESTCOV
/RANDOM=INTERCEPT | SUBJECT(Local_Authority) COVTYPE(VC).

```

Mixed Model Analysis

Notes	
Output Created	28-JUN-2022 23:10:19
Comments	

Input	Data	S:\Quant\data cleaning\V2\KN\V3\Analysis\An alysis 27.06.2022\NERS_NS.sav
	Active Dataset	DataSet1
	Filter	(Cohort_Group = 1 Cohort_Group = 2 Cohort_Group = 3) & (status_code_2 = 4 status_code_2 = 6) & (Sessions_completed_16wk >= 1) (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5906
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Syntax

```
MIXED  
Sessions_completed_16wk  
WITH Age_at_ref2 Gender2  
Cohort_Dummy2  
Cohort_Dummy3  
IMD_Quintile2_dummy  
    IMD_Quintile3_dummy  
IMD_Quintile4_dummy  
IMD_Quintile5_dummy  
  
Pathway_5_dummy_generic_level4  
Pathway_5_dummy_generic_back  
Pathway_5_dummy_generic_MH  
  
Pathway_5_dummy_generic_weight  
  
/CRITERIA=DFMETHOD(SATTERTHWAITE) CIN(95)  
MXITER(100) MXSTEP(10)  
SCORING(1)  
  
SINGULAR(0.000000000001)  
HCONVERGE(0, ABSOLUTE)  
LCONVERGE(0, ABSOLUTE)  
PCONVERGE(0.000001, ABSOLUTE)  
    /FIXED=Age_at_ref2 Gender2  
Cohort_Dummy2  
Cohort_Dummy3  
IMD_Quintile2_dummy  
IMD_Quintile3_dummy  
    IMD_Quintile4_dummy  
IMD_Quintile5_dummy  
Pathway_5_dummy_generic_level4
```

		Pathway_5_dummy_generic_b ack Pathway_5_dummy_generic_M H Pathway_5_dummy_generic_w eight SSTYPE(3) /METHOD=ML /PRINT=G SOLUTION TESTCOV /RANDOM=INTERCEPT SUBJECT(Local_Authority) COVTYPE(VC).
Resources	Processor Time	00:00:00.25
	Elapsed Time	00:00:00.25

Model Dimension^a

		Number of Levels	Covariance Structure	Number of Parameters	Subject Variables
Fixed Effects	Intercept	1		1	
	Age_at_ref2	1		1	
	Gender2	1		1	
	Cohort_Dummy2	1		1	
	Cohort_Dummy3	1		1	
	IMD_Quintile2_dummy	1		1	
	IMD_Quintile3_dummy	1		1	
	IMD_Quintile4_dummy	1		1	
	IMD_Quintile5_dummy	1		1	
	Pathway_5_dummy_generic_l evel4	1		1	
	Pathway_5_dummy_generic_b ack	1		1	
	Pathway_5_dummy_generic_ MH	1		1	
	Pathway_5_dummy_generic_ weight	1		1	

Random Effects	Intercept ^b	1	Variance Components	1	Local_Authority
Residual				1	
Total		14		15	

- a. Dependent Variable: Sessions_completed_16wk.
- b. As of version 11.5, the syntax rules for the RANDOM subcommand have changed. Your command syntax may yield results that differ from those produced by prior versions. If you are using version 11 syntax, please consult the current syntax reference guide for more information.

Information Criteria^a

-2 Log Likelihood	42373.960
Akaike's Information Criterion (AIC)	42403.960
Hurvich and Tsai's Criterion (AICC)	42404.045
Bozdogan's Criterion (CAIC)	42518.570
Schwarz's Bayesian Criterion (BIC)	42503.570

The information criteria are displayed in smaller-is-better form.

- a. Dependent Variable:
Sessions_completed_16wk.

Fixed Effects

Type III Tests of Fixed Effects^a

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	78.232	432.691	<.001
Age_at_ref2	1	5643.227	.924	.337
Gender2	1	5638.242	15.176	<.001
Cohort_Dummy2	1	5656.653	135.769	<.001
Cohort_Dummy3	1	5648.694	19.916	<.001
IMD_Quintile2_dummy	1	5643.902	.745	.388

IMD_Quintile3_dummy	1	5656.217	.345	.557
IMD_Quintile4_dummy	1	5655.758	1.300	.254
IMD_Quintile5_dummy	1	5652.336	.080	.777
Pathway_5_dummy_generic_level4	1	5641.731	15.035	<.001
Pathway_5_dummy_generic_back	1	5646.727	2.975	.085
Pathway_5_dummy_generic_MH	1	5642.008	1.248	.264
Pathway_5_dummy_generic_weight	1	5648.682	1.692	.193

a. Dependent Variable: Sessions_completed_16wk.

Estimates of Fixed Effects ^a							
Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	25.336708	1.218039	78.232	20.801	<.001	22.911892	27.761524
Age_at_ref2	.009510	.009895	5643.227	.961	.337	-.009888	.028908
Gender2	-1.107519	.284300	5638.242	-3.896	<.001	-1.664856	-.550182
Cohort_Dummy2	-3.805125	.326564	5656.653	-11.652	<.001	-4.445316	-3.164934
Cohort_Dummy3	2.556291	.572815	5648.694	4.463	<.001	1.433353	3.679228
IMD_Quintile2_dummy	-.410822	.475823	5643.902	-.863	.388	-1.343619	.521974
IMD_Quintile3_dummy	.276813	.470961	5656.217	.588	.557	-.646452	1.200077
IMD_Quintile4_dummy	-.536367	.470513	5655.758	-1.140	.254	-1.458753	.386019
IMD_Quintile5_dummy	.136662	.482127	5652.336	.283	.777	-.808492	1.081815
Pathway_5_dummy_generic_level4	-1.518074	.391515	5641.731	-3.877	<.001	-2.285594	-.750555
Pathway_5_dummy_generic_back	-1.285163	.745136	5646.727	-1.725	.085	-2.745916	.175590
Pathway_5_dummy_generic_MH	-.708628	.634381	5642.008	-1.117	.264	-1.952259	.535002
Pathway_5_dummy_generic_weight	-.573270	.440704	5648.682	-1.301	.193	-1.437219	.290678

a. Dependent Variable: Sessions_completed_16wk.

Covariance Parameters

Estimates of Covariance Parameters ^a						
Parameter	Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Residual	103.380846	1.947665	53.079	.000	99.633112	107.269552
Intercept [subject = Local Authority]	Variance 16.720623	5.205158	3.212	.001	9.083893	30.777471

a. Dependent Variable: Sessions_completed_16wk.

Random Effect Covariance Structure
(G)^a

Intercept Local Authority	
Intercept Local Authority	16.720623

Variance Components

a. Dependent Variable:

Sessions_completed_16wk.

* Bar chart with 95% CIs for cohort group.

GGRAPH

```
/GRAPHDATASET NAME="graphdataset" VARIABLES=Cohort_Group MEANCI(Sessions_completed_16wk,
95) [name="MEAN_Sessions_completed_16wk" LOW="MEAN_Sessions_completed_16wk_LOW"
HIGH="MEAN_Sessions_completed_16wk_HIGH"] MISSING=LISTWISE REPORTMISSING=NO
/GRAPHSPEC SOURCE=INLINE
/COLORCYCLE COLOR1(150,145,145), COLOR2(0,93,93), COLOR3(159,24,83), COLOR4(250,77,86),
COLOR5(87,4,8), COLOR6(25,128,56), COLOR7(0,45,156), COLOR8(238,83,139), COLOR9(178,134,0),
COLOR10(0,157,154), COLOR11(1,39,73), COLOR12(138,56,0), COLOR13(165,110,255),
COLOR14(236,230,208), COLOR15(69,70,71), COLOR16(92,202,136), COLOR17(208,83,52),
COLOR18(204,127,228), COLOR19(225,188,29), COLOR20(237,75,75), COLOR21(28,205,205),
COLOR22(92,113,72), COLOR23(225,139,14), COLOR24(9,38,114), COLOR25(90,100,94), COLOR26(155,0,0),
COLOR27(207,172,227), COLOR28(150,145,145), COLOR29(63,235,124), COLOR30(105,41,196)
/FRAME OUTER=NO INNER=NO
/GRIDLINES XAXIS=NO YAXIS=YES.
```

BEGIN GPL

```
SOURCE: s=userSource(id("graphdataset"))
DATA: Cohort_Group=col(source(s), name("Cohort_Group"), unit.category())
DATA: MEAN_Sessions_completed_16wk=col(source(s), name("MEAN_Sessions_completed_16wk"))
DATA: LOW=col(source(s), name("MEAN_Sessions_completed_16wk_LOW"))
DATA: HIGH=col(source(s), name("MEAN_Sessions_completed_16wk_HIGH"))
GUIDE: axis(dim(1), label("Cohort_Group"))
GUIDE: axis(dim(2), label("Mean Sessions_completed_16wk"))
GUIDE: text.title(label("Simple Bar Mean of Sessions_completed_16wk by Cohort_Group"))
GUIDE: text.footnote(label("Error Bars: 95% CI"))
```

```
SCALE: cat(dim(1), include("1.00", "2.00", "3.00"))
SCALE: linear(dim(2), include(0))
ELEMENT: interval(position(Cohort_Group*MEAN_Sessions_completed_16wk),
  shape.interior(shape.square))
ELEMENT: interval(position(region.spread.range(Cohort_Group*(LOW+HIGH))),
  shape.interior(shape.ibeam))
END GPL.
```

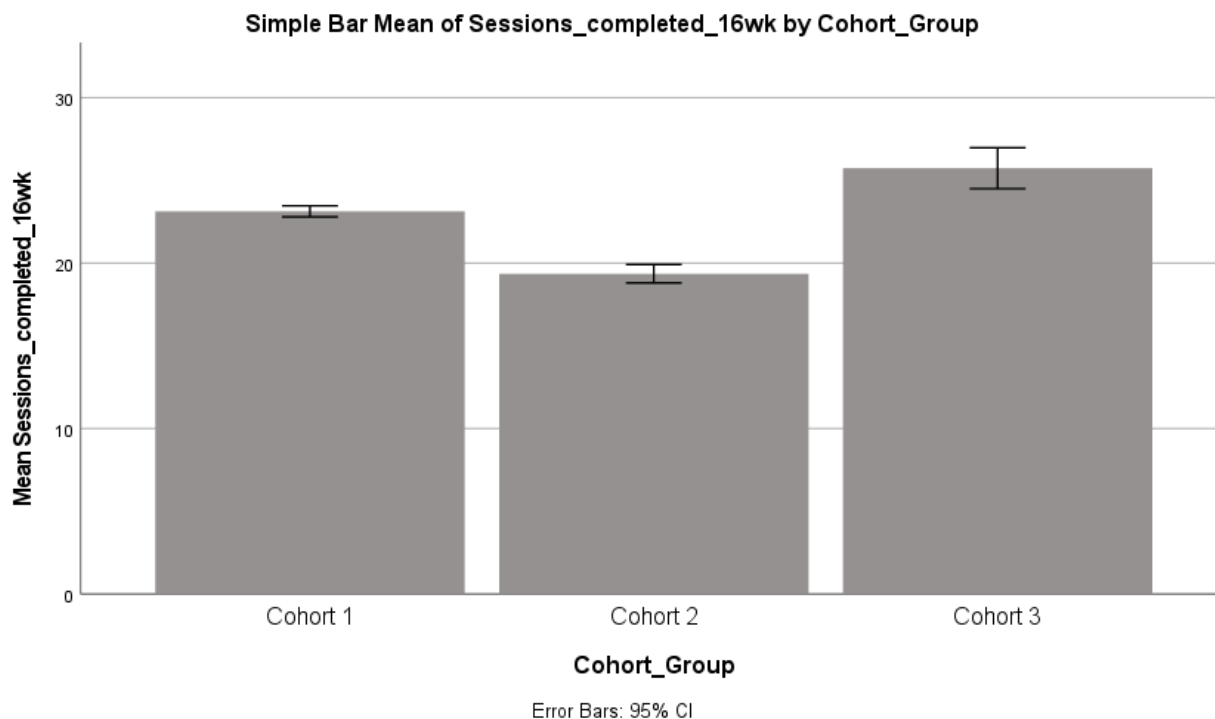
GGraph

Notes		
Output Created		28-JUN-2022 23:10:19
Comments		
Input	Data	S:\Quant\data cleaning\V2\KN\V3\Analysis\An alysis 27.06.2022\NERS_NS.sav
	Active Dataset	DataSet1
	Filter	(Cohort_Group = 1 Cohort_Group = 2 Cohort_Group = 3) & (status_code_2 = 4 status_code_2 = 6) & (Sessions_completed_16wk >= 1) (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5906

Syntax	<pre>GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=Cohort_Group MEANCI(Sessions_completed_ 16wk, 95)[name="MEAN_Sessions_c ompleted_16wk" LOW="MEAN_Sessions_compl eted_16wk_LOW" HIGH="MEAN_Sessions_compl eted_16wk_HIGH"] MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE /COLORCYCLE COLOR1(150,145,145), COLOR2(0,93,93), COLOR3(159,24,83), COLOR4(250,77,86), COLOR5(87,4,8), COLOR6(25,128,56), COLOR7(0,45,156), COLOR8(238,83,139), COLOR9(178,134,0), COLOR10(0,157,154), COLOR11(1,39,73), COLOR12(138,56,0), COLOR13(165,110,255), COLOR14(236,230,208), COLOR15(69,70,71), COLOR16(92,202,136), COLOR17(208,83,52), COLOR18(204,127,228), COLOR19(225,188,29), COLOR20(237,75,75), COLOR21(28,205,205),</pre>
--------	---

```
    COLOR22(92,113,72),
    COLOR23(225,139,14),
    COLOR24(9,38,114),
    COLOR25(90,100,94),
    COLOR26(155,0,0),
    COLOR27(207,172,227),
    COLOR28(150,145,145),
    COLOR29(63,235,124),
    COLOR30(105,41,196)
    /FRAME OUTER=NO
    INNER=NO
    /GRIDLINES XAXIS=NO
    YAXIS=YES.
    BEGIN GPL
    SOURCE:
    s=userSource(id("graphdataset"
    ))
    DATA:
    Cohort_Group=col(source(s),
    name("Cohort_Group"),
    unit.category())
    DATA:
    MEAN_Sessions_completed_1
    6wk=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk"))
    DATA: LOW=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk_LOW"))
    DATA: HIGH=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk_HIGH"))
    GUIDE: axis(dim(1),
    label("Cohort_Group"))
    GUIDE: axis(dim(2),
    label("Mean
    Sessions_completed_16wk"))
    GUIDE: text.title(label("Simple
    Bar Mean of
```

		Sessions_completed_16wk by Cohort_Group")) GUIDE: text.footnote(label("Error Bars: 95% CI")) SCALE: cat(dim(1), include("1.00", "2.00", "3.00")) SCALE: linear(dim(2), include(0)) ELEMENT: interval(position(Cohort_Group*MEAN_Sessions_completed_16wk), shape.interior(shape.square)) ELEMENT: interval(position(region.spread.range(Cohort_Group*(LOW+HIGH))), shape.interior(shape.ibeam)) END GPL.
Resources	Processor Time	00:00:00.45
	Elapsed Time	00:00:00.37



* Bar chart with 95% CIs for sex.

GGRAPH

```
/GRAPHDATASET NAME="graphdataset" VARIABLES=Gender2 MEANCI(Sessions_completed_16wk,
  95)[name="MEAN_Sessions_completed_16wk" LOW="MEAN_Sessions_completed_16wk_LOW"
  HIGH="MEAN_Sessions_completed_16wk_HIGH"] MISSING=LISTWISE REPORTMISSING=NO
/GRAPHSPEC SOURCE=INLINE
/COLORCYCLE COLOR1(150,145,145), COLOR2(0,93,93), COLOR3(159,24,83), COLOR4(250,77,86),
  COLOR5(87,4,8), COLOR6(25,128,56), COLOR7(0,45,156), COLOR8(238,83,139), COLOR9(178,134,0),
  COLOR10(0,157,154), COLOR11(1,39,73), COLOR12(138,56,0), COLOR13(165,110,255),
  COLOR14(236,230,208), COLOR15(69,70,71), COLOR16(92,202,136), COLOR17(208,83,52),
  COLOR18(204,127,228), COLOR19(225,188,29), COLOR20(237,75,75), COLOR21(28,205,205),
  COLOR22(92,113,72), COLOR23(225,139,14), COLOR24(9,38,114), COLOR25(90,100,94), COLOR26(155,0,0),
  COLOR27(207,172,227), COLOR28(150,145,145), COLOR29(63,235,124), COLOR30(105,41,196)
/FRAME OUTER=NO INNER=NO
/GRIDLINES XAXIS=NO YAXIS=YES.
```

BEGIN GPL

```
SOURCE: s=userSource(id("graphdataset"))
DATA: Gender2=col(source(s), name("Gender2"), unit.category())
DATA: MEAN_Sessions_completed_16wk=col(source(s), name("MEAN_Sessions_completed_16wk"))
DATA: LOW=col(source(s), name("MEAN_Sessions_completed_16wk_LOW"))
DATA: HIGH=col(source(s), name("MEAN_Sessions_completed_16wk_HIGH"))
GUIDE: axis(dim(1), label("Gender2"))
GUIDE: axis(dim(2), label("Mean Sessions_completed_16wk"))
GUIDE: text.title(label("Simple Bar Mean of Sessions_completed_16wk by Gender2"))
GUIDE: text.footnote(label("Error Bars: 95% CI"))
SCALE: cat(dim(1), include("1.00", "2.00"))
SCALE: linear(dim(2), include(0))
ELEMENT: interval(position(Gender2*MEAN_Sessions_completed_16wk), shape.interior(shape.square))
ELEMENT: interval(position(region.spread.range(Gender2*(LOW+HIGH))), shape.interior(shape.ibeam))
```

END GPL.

GGraph

Notes		
Output Created		28-JUN-2022 23:10:20
Comments		
Input	Data	S:\Quant\data cleaning\V2\KN\V3\Analysis\An alysis 27.06.2022\NERS_NS.sav
	Active Dataset	DataSet1
	Filter	(Cohort_Group = 1 Cohort_Group = 2 Cohort_Group = 3) & (status_code_2 = 4 status_code_2 = 6) & (Sessions_completed_16wk >= 1) (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5906

Syntax	<pre>GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=Gender2 MEANCI(Sessions_completed_ 16wk, 95)[name="MEAN_Sessions_c ompleted_16wk" LOW="MEAN_Sessions_compl eted_16wk_LOW" HIGH="MEAN_Sessions_compl eted_16wk_HIGH"] MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE /COLORCYCLE COLOR1(150,145,145), COLOR2(0,93,93), COLOR3(159,24,83), COLOR4(250,77,86), COLOR5(87,4,8), COLOR6(25,128,56), COLOR7(0,45,156), COLOR8(238,83,139), COLOR9(178,134,0), COLOR10(0,157,154), COLOR11(1,39,73), COLOR12(138,56,0), COLOR13(165,110,255), COLOR14(236,230,208), COLOR15(69,70,71), COLOR16(92,202,136), COLOR17(208,83,52), COLOR18(204,127,228), COLOR19(225,188,29), COLOR20(237,75,75), COLOR21(28,205,205),</pre>
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```
    COLOR22(92,113,72),
    COLOR23(225,139,14),
    COLOR24(9,38,114),
    COLOR25(90,100,94),
    COLOR26(155,0,0),
    COLOR27(207,172,227),
    COLOR28(150,145,145),
    COLOR29(63,235,124),
    COLOR30(105,41,196)
    /FRAME OUTER=NO
    INNER=NO
    /GRIDLINES XAXIS=NO
    YAXIS=YES.
    BEGIN GPL
    SOURCE:
    s=userSource(id("graphdataset"
    ))
    DATA:
    Gender2=col(source(s),
    name("Gender2"),
    unit.category())
    DATA:
    MEAN_Sessions_completed_1
    6wk=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk"))
    DATA: LOW=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk_LOW"))
    DATA: HIGH=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk_HIGH"))
    GUIDE: axis(dim(1),
    label("Gender2"))
    GUIDE: axis(dim(2),
    label("Mean
    Sessions_completed_16wk"))
    GUIDE: text.title(label("Simple
    Bar Mean of
```

		Sessions_completed_16wk by Gender2")) GUIDE: text.footnote(label("Error Bars: 95% CI")) SCALE: cat(dim(1), include("1.00", "2.00")) SCALE: linear(dim(2), include(0)) ELEMENT: interval(position(Gender2*MEAN_Sessions_completed_16wk), shape.interior(shape.square)) ELEMENT: interval(position(region.spread.range(Gender2*(LOW+HIGH))), shape.interior(shape.ibeam)) END GPL.
Resources	Processor Time	00:00:00.45
	Elapsed Time	00:00:00.37



```
* Chart Builder.
GGRAPH
  /GRAPHDATASET NAME="graphdataset" VARIABLES=Pathways_5 MEANCI(Sessions_completed_16wk,
    95)[name="MEAN_Sessions_completed_16wk" LOW="MEAN_Sessions_completed_16wk_LOW"
    HIGH="MEAN_Sessions_completed_16wk_HIGH"] MISSING=LISTWISE REPORTMISSING=NO
  /GRAPHSPEC SOURCE=INLINE
  /COLORCYCLE COLOR1(150,145,145), COLOR2(0,93,93), COLOR3(159,24,83), COLOR4(250,77,86),
    COLOR5(87,4,8), COLOR6(25,128,56), COLOR7(0,45,156), COLOR8(238,83,139), COLOR9(178,134,0),
    COLOR10(0,157,154), COLOR11(1,39,73), COLOR12(138,56,0), COLOR13(165,110,255),
    COLOR14(236,230,208), COLOR15(69,70,71), COLOR16(92,202,136), COLOR17(208,83,52),
    COLOR18(204,127,228), COLOR19(225,188,29), COLOR20(237,75,75), COLOR21(28,205,205),
    COLOR22(92,113,72), COLOR23(225,139,14), COLOR24(9,38,114), COLOR25(90,100,94), COLOR26(155,0,0),
    COLOR27(207,172,227), COLOR28(150,145,145), COLOR29(63,235,124), COLOR30(105,41,196)
  /FRAME OUTER=NO INNER=NO
  /GRIDLINES XAXIS=NO YAXIS=YES.
BEGIN GPL
  SOURCE: s=userSource(id("graphdataset"))
  DATA: Pathways_5=col(source(s), name("Pathways_5"), unit.category())
  DATA: MEAN_Sessions_completed_16wk=col(source(s), name("MEAN_Sessions_completed_16wk"))
  DATA: LOW=col(source(s), name("MEAN_Sessions_completed_16wk_LOW"))
  DATA: HIGH=col(source(s), name("MEAN_Sessions_completed_16wk_HIGH"))
  GUIDE: axis(dim(1), label("Pathways_5"))
  GUIDE: axis(dim(2), label("Mean Sessions_completed_16wk"))
  GUIDE: text.title(label("Simple Bar Mean of Sessions_completed_16wk by Pathways_5"))
  GUIDE: text.footnote(label("Error Bars: 95% CI"))
  SCALE: linear(dim(2), include(0))
  ELEMENT: interval(position(Pathways_5*MEAN_Sessions_completed_16wk), shape.interior(shape.square))
  ELEMENT: interval(position(region.spread.range(Pathways_5*(LOW+HIGH))),
    shape.interior(shape.ibeam))
END GPL.
```

GGraph

Notes		
Output Created		28-JUN-2022 23:10:20
Comments		
Input	Data	S:\Quant\data cleaning\V2\KN\V3\Analysis\An alysis 27.06.2022\NERS_NS.sav
	Active Dataset	DataSet1

Filter	(Cohort_Group = 1 Cohort_Group = 2 Cohort_Group = 3) & (status_code_2 = 4 status_code_2 = 6) & (Sessions_completed_16wk >= 1) (FILTER)
Weight	<none>
Split File	<none>
N of Rows in Working Data File	5906

Syntax	<pre>GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=Pathways_5 MEANCI(Sessions_completed_ 16wk, 95)[name="MEAN_Sessions_c ompleted_16wk" LOW="MEAN_Sessions_compl eted_16wk_LOW" HIGH="MEAN_Sessions_compl eted_16wk_HIGH"] MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE /COLORCYCLE COLOR1(150,145,145), COLOR2(0,93,93), COLOR3(159,24,83), COLOR4(250,77,86), COLOR5(87,4,8), COLOR6(25,128,56), COLOR7(0,45,156), COLOR8(238,83,139), COLOR9(178,134,0), COLOR10(0,157,154), COLOR11(1,39,73), COLOR12(138,56,0), COLOR13(165,110,255), COLOR14(236,230,208), COLOR15(69,70,71), COLOR16(92,202,136), COLOR17(208,83,52), COLOR18(204,127,228), COLOR19(225,188,29), COLOR20(237,75,75), COLOR21(28,205,205),</pre>
--------	---

```
    COLOR22(92,113,72),
    COLOR23(225,139,14),
    COLOR24(9,38,114),
    COLOR25(90,100,94),
    COLOR26(155,0,0),
    COLOR27(207,172,227),
    COLOR28(150,145,145),
    COLOR29(63,235,124),
    COLOR30(105,41,196)
    /FRAME OUTER=NO
    INNER=NO
    /GRIDLINES XAXIS=NO
    YAXIS=YES.
    BEGIN GPL
    SOURCE:
    s=userSource(id("graphdataset"
    ))
    DATA:
    Pathways_5=col(source(s),
    name("Pathways_5"),
    unit.category())
    DATA:
    MEAN_Sessions_completed_1
    6wk=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk"))
    DATA: LOW=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk_LOW"))
    DATA: HIGH=col(source(s),
    name("MEAN_Sessions_compl
    eted_16wk_HIGH"))
    GUIDE: axis(dim(1),
    label("Pathways_5"))
    GUIDE: axis(dim(2),
    label("Mean
    Sessions_completed_16wk"))
    GUIDE: text.title(label("Simple
    Bar Mean of
```

		Sessions_completed_16wk by Pathways_5")) GUIDE: text.footnote(label("Error Bars: 95% CI")) SCALE: linear(dim(2), include(0)) ELEMENT: interval(position(Pathways_5*MEAN_Sessions_completed_16wk), shape.interior(shape.square)) ELEMENT: interval(position(region.spread.range(Pathways_5*(LOW+HIGH))), shape.interior(shape.ibeam)) END GPL.
Resources	Processor Time	00:00:00.47
	Elapsed Time	00:00:00.36

