Revisiting the J shaped curve, exploring the association between cardiovascular risk factors and concurrent depressive symptoms in patients with cardiometabolic disease: Findings from a large cross-sectional study.

Supplement 2 – Linear Regression with HADS-D as Continuous Measure

Systolic Blood Pressure (SBP)- Linear Regression Analysis

Table 1: Title: Results of multiple linear regression for outcome of concurrent depressive symptoms (HADS-D) without extreme values for Systolic Blood Pressure. Legend: SBP: Systolic Blood Pressure. The table shows regression of analysed data after excluding extreme values for SBP (SBP <90 mm Hg and SBP >240 mm Hg) with HADS-D as a continuous variable. HADS-D was transformed into square root (HADS-D) as it was not normally distributed.

	Regression 1- Analysed Data without extreme values N=32029		
Variable	Regression co-efficient	p-value	Standard Error
SBP	-1.61	<0.001	2.94
SBP ^2	5.57	<0.001	1.06
Age Group(65-90)	-9.06	<0.001	1.16
Sex (Male)	-1.36	<0.001	1.08
Deprivation Status (Affluent)	-2.82	<0.001	1.11
Co-morbid Conditions			
Two	1.86	<0.001	1.29
Three	3.05	<0.001	3.55

Diastolic Blood Pressure (DBP)-Linear Regression Analysis

Table 2: Title: Results of multiple linear regression for outcome of concurrent depressive symptoms (HADS-D) without extreme values for Diastolic Blood Pressure. Legend: DBP: Diastolic Blood Pressure. The table shows the regression of analysed data after excluding extreme values for DBP (DBP <50 mm Hg and DBP >130 mm Hg) with HADS-D as a continuous variable. HADS-D was transformed into square root (HADS-D) as it was not normally distributed.

	Regression 2- Analysed Data without extreme values N=31972		
Variable	Regression co-efficient	p-value	Standard Error
DBP	-1.90	<0.001	5.10
DBP ^2	1.21	<0.001	3.33
Age Group(65-90)	-9.66	<0.001	1.19
Sex (Male)	-1.35	<0.001	1.08
Deprivation Status (Affluent)	-2.83	<0.001	1.11
Co-morbid Conditions			
Two	1.86	<0.001	1.29
Three	3.03	<0.001	3.57

Total Cholesterol-Linear Regression Analysis

Table 3: Title: Results of multiple linear regression for outcome of concurrent depressive symptoms (HADS-D) without extreme values for Total Cholesterol. Legend: The table shows the regression of analysed data after excluding extreme values for Total Cholesterol (Total Cholesterol < 2 mmol/l and Total Cholesterol > 10 mmol/l) with HADS-D as a continuous variable. HADS-D was transformed into square root (HADS-D) as it was not normally distributed. Total Cholesterol was log transformed as it was not normally distributed.

	Regression 3- Analysed Data without extreme values N=31244		
Variable	Regression co-efficient	p-value	Standard Error
Log (total cholesterol)	-0.90	<0.001	0.19
Log (total cholesterol) ^2	0.35	<0.001	0.06
Age Group(65-90)	-0.07	<0.001	0.01
Sex (Male)	-0.12	<0.001	0.01
Deprivation Status (Affluent)	-0.28	<0.001	0.01
Co-morbid Conditions			
Two	0.19	<0.001	0.01
Three	0.32	<0.001	0.03

Body Mass Index-Linear Regression Analysis

Table 4: Title: Results of multiple linear regression for outcome of concurrent depressive symptoms (HADS-D) without extreme values for Body Mass Index. Legend: BMI: Body Mass Index. The table shows the regression of analysed data after excluding extreme values for BMI (BMI < 15 kg/m2 and BMI > 55 kg/m2) with HADS-D as a continuous variable. HADS-D was transformed into square root (HADS-D) as it was not normally distributed. BMI was log transformed as it was not normally distributed.

	Regression 4- Analysed Data without extreme values N=30042		
Variable	Regression co-efficient	p-value	Standard Error
Log (BMI)	-9.51	<0.001	0.67
Log (BMI) ^2	1.41	<0.001	0.10
Age Group(65-90)	-0.08	<0.001	0.01
Sex (Male)	-0.11	<0.001	0.01
Deprivation Status (Affluent)	-0.27	<0.001	0.01
Co-morbid Conditions			
Two	0.18	<0.001	0.01
Three	0.33	<0.001	0.03

HbA1c-Linear Regression Analysis

Table 5: Title: Results of multiple linear regression for outcome of concurrent depressive symptoms (HADS-D) without extreme values for HbA1c. Legend: The table shows the regression of analysed data after excluding extreme values HbA1c (HbA1c < 3 DCCT and HbA1c>18 DCCT). Regression 5b shows results of data including extreme values with HADS-D as a continuous variable. HADS-D was transformed into square root (HADS-D) as it was not normally distributed. HbA1c was log transformed as it was not normally distributed.

	Regression 5- Analysed Data without extreme values N=15676		
Variable	Regression co-efficient	p-value	Standard Error
Log (HbA1c)	-2.13	<0.001	0.55
Log (HbA1c) ^2	0.55	<0.001	0.13
Age Group(65-90)	-0.07	<0.001	0.01
Sex (Male)	-0.12	<0.001	0.01
Deprivation Status (Affluent)	-0.25	<0.001	0.01
Co-morbid Conditions			
Two	0.24	<0.001	0.01
Three	0.40	<0.001	0.03