# DodoNA, Center for Brain Health: Correlation Analysis at Initial Visit for toolkit

Total Patients = 118
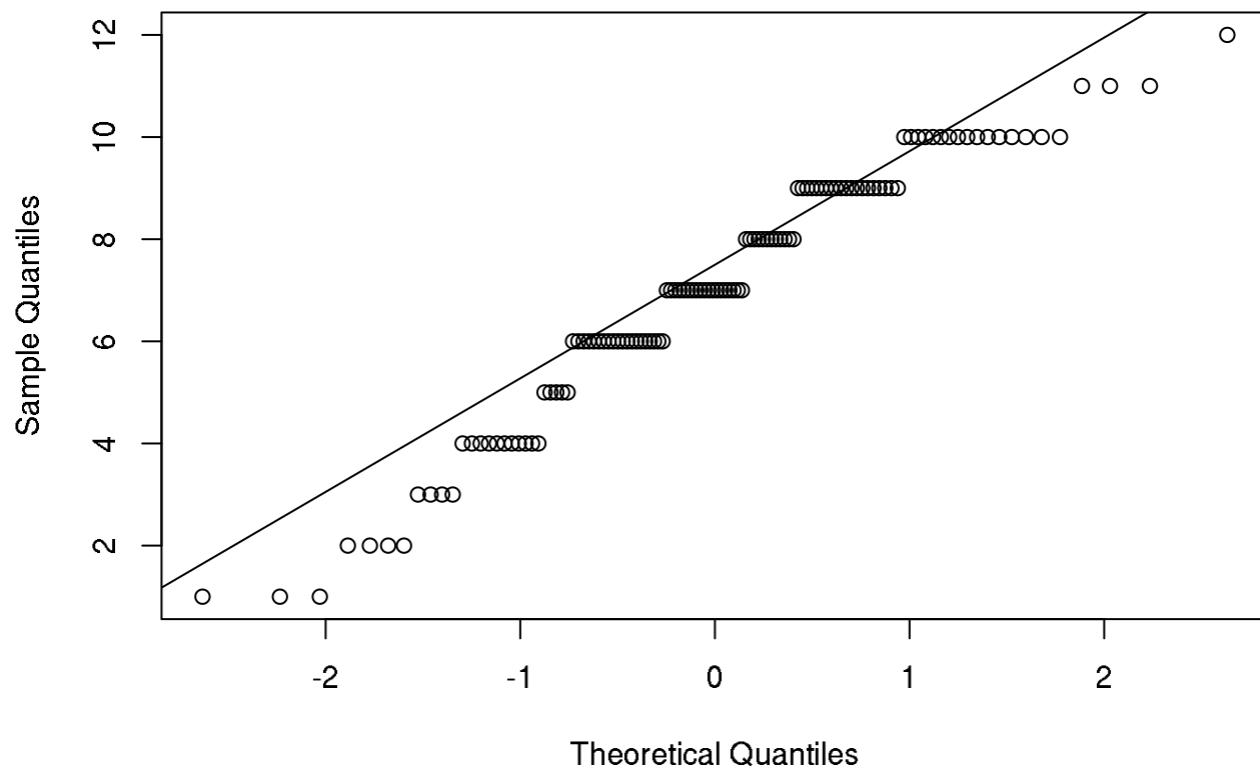
medit_diet_score

Min	Median	Mean	Max	StdDev	NoData
1.00	7.00	7.00	12.00	2.48	0

medit_diet_score
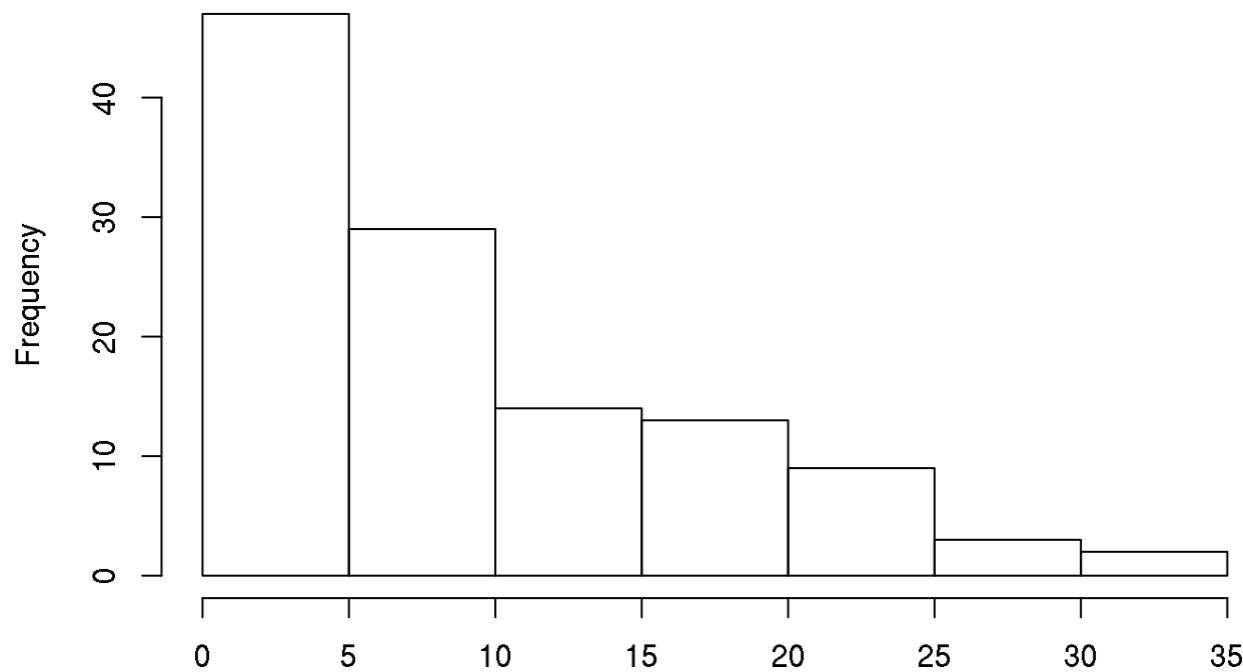
Normal Q-Q Plot
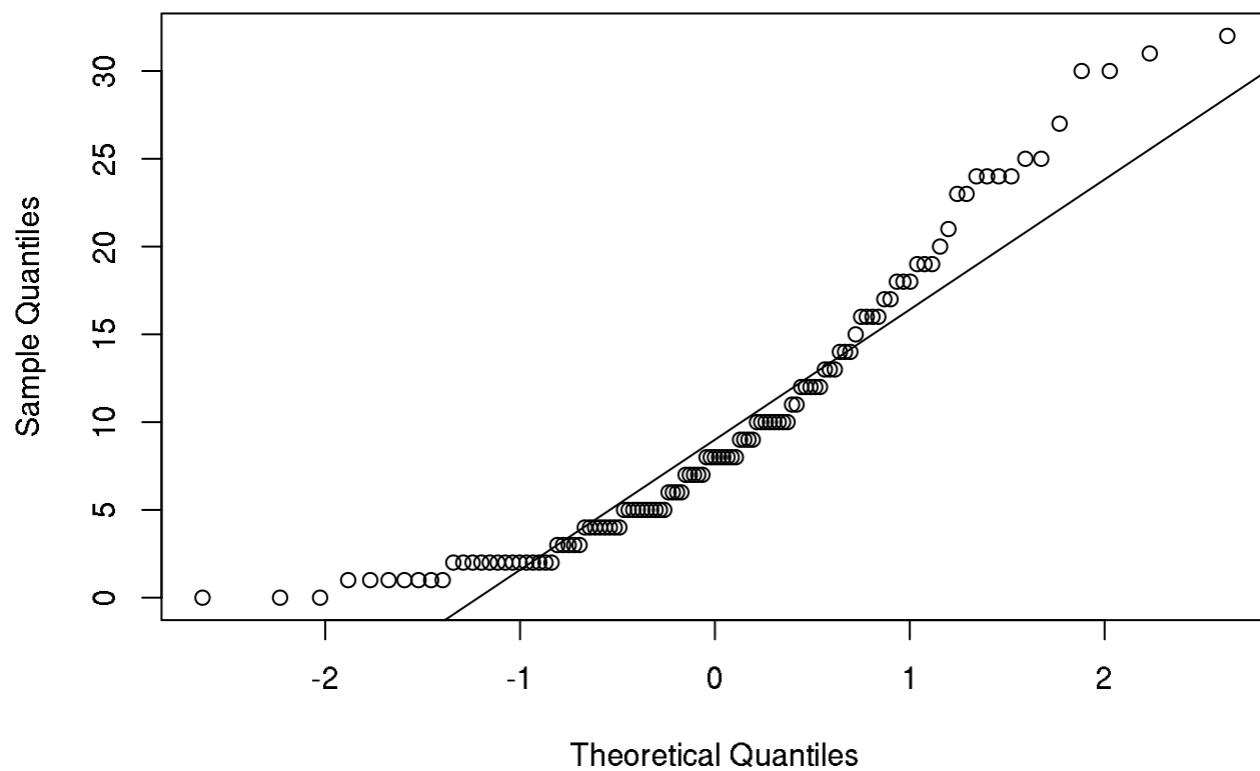
ces_d_score

Min	Median	Mean	Max	StdDev	NoData
0.00	8.00	9.75	32.00	7.93	1

ces_d_score
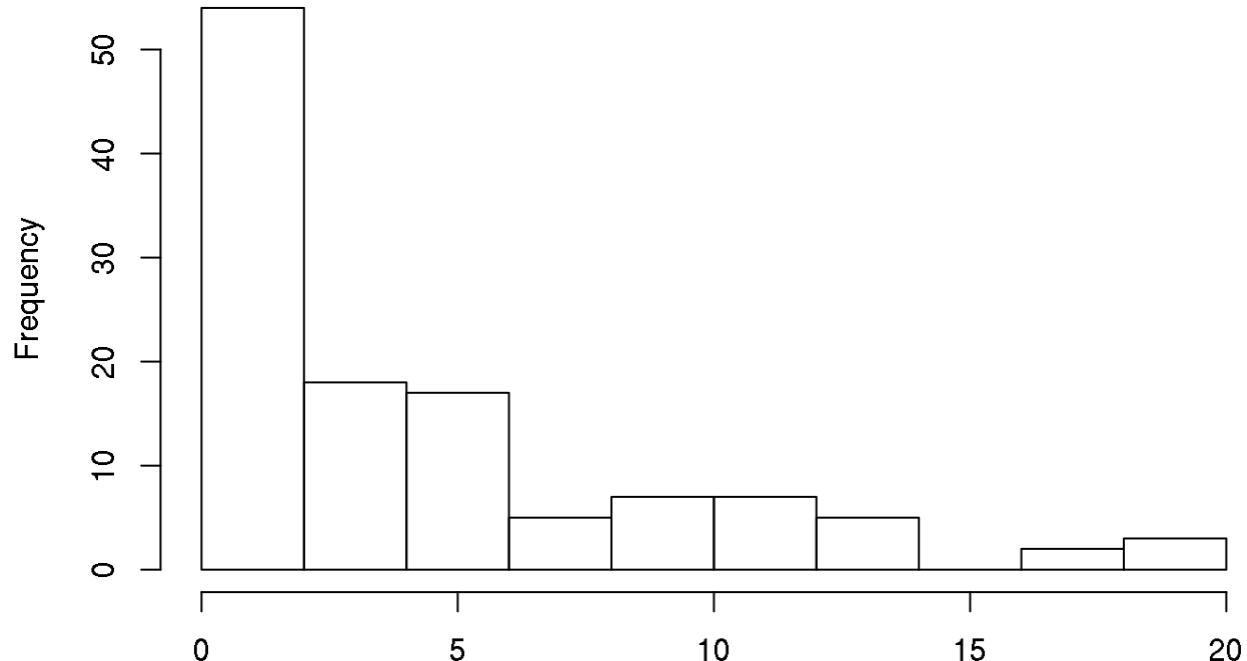
Normal Q-Q Plot
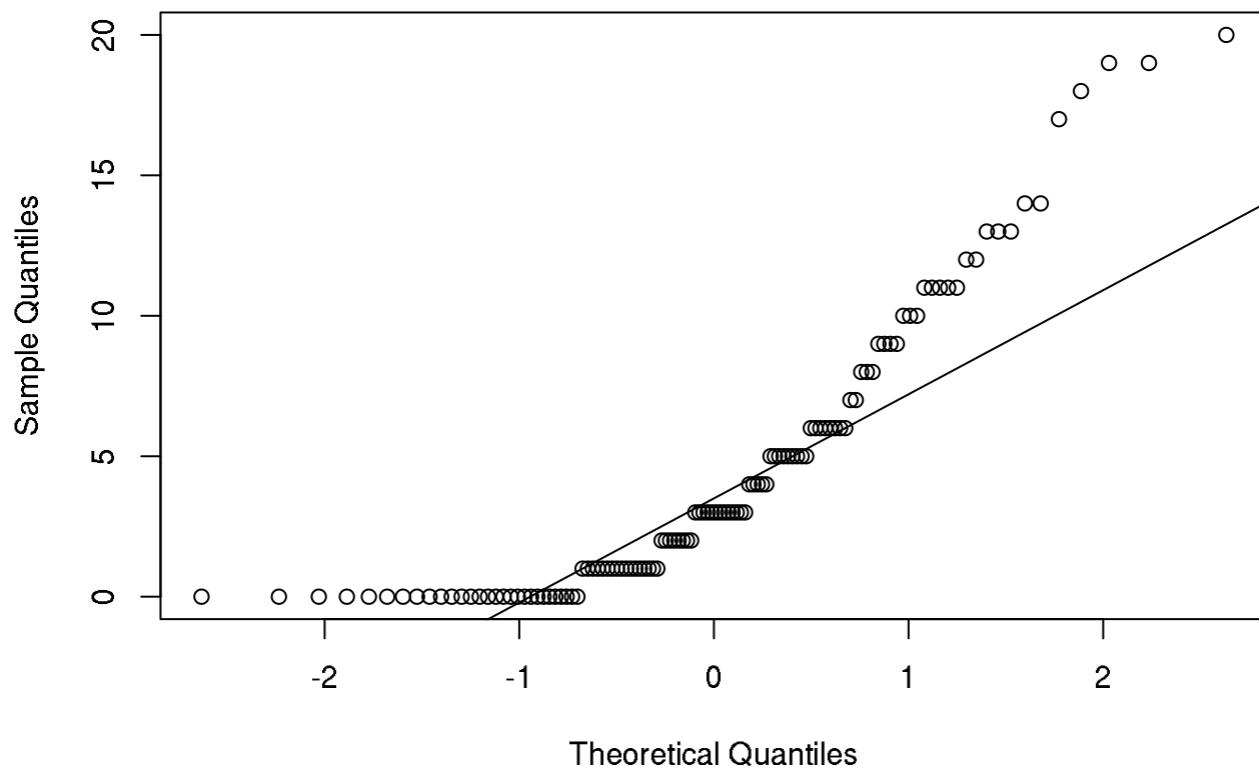
gad_7_score

Min	Median	Mean	Max	StdDev	NoData
0.00	3.00	4.47	20.00	4.92	0

gad_7_score
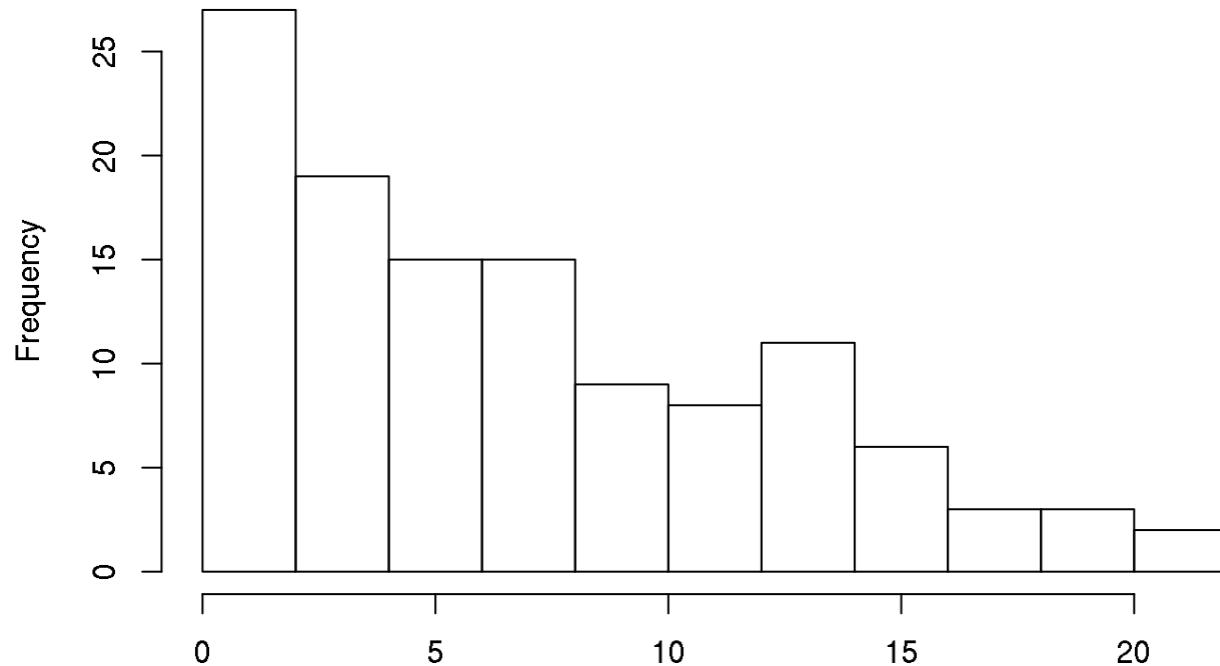
Normal Q-Q Plot
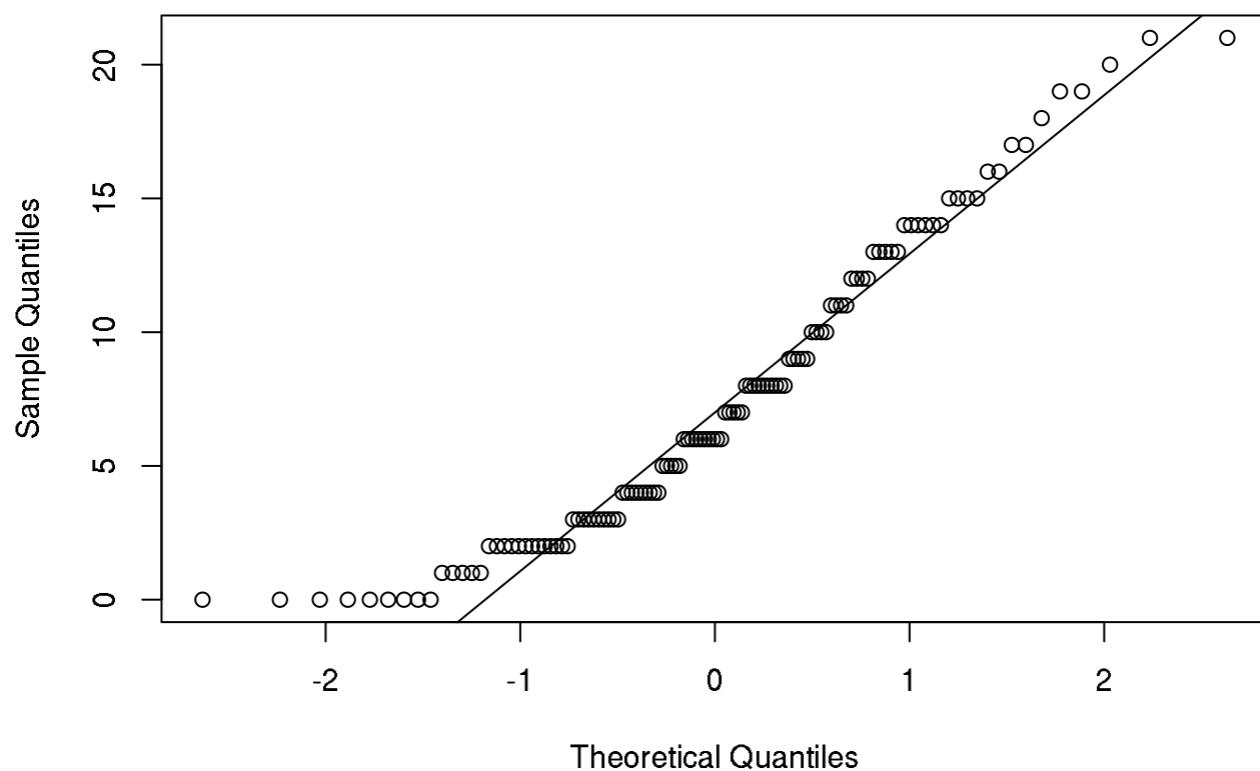
isi_scoring

Min	Median	Mean	Max	StdDev	NoData
0.00	6.00	7.35	21.00	5.47	0

isi_scoring
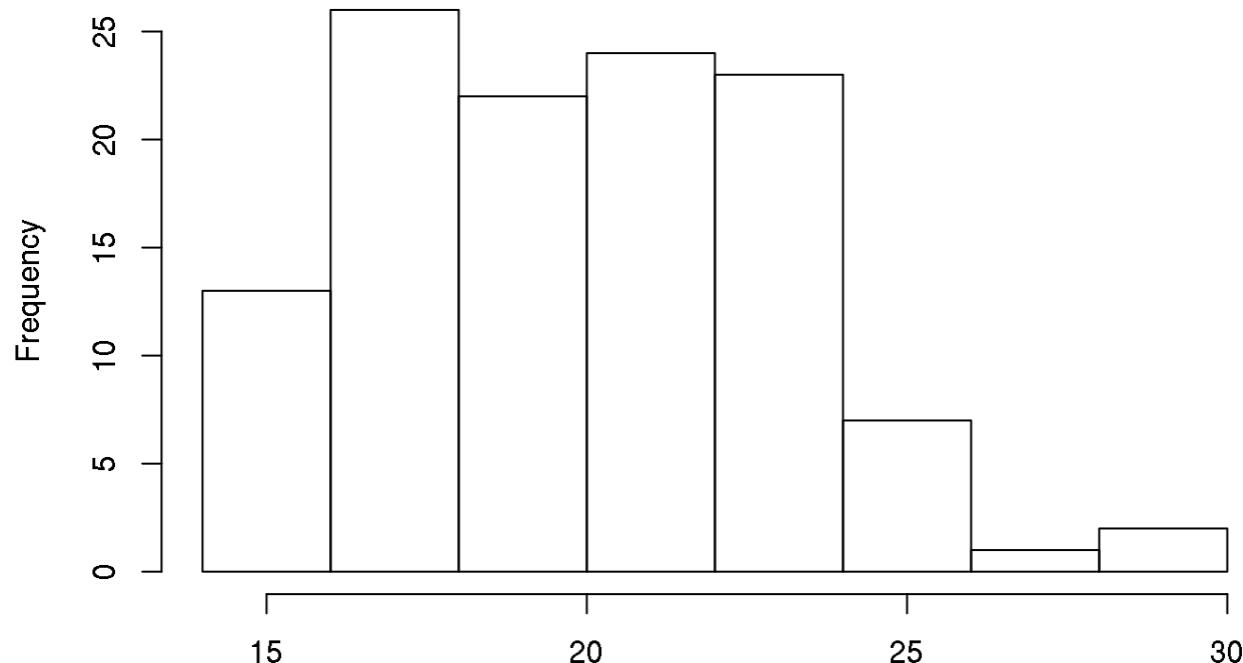
Normal Q-Q Plot
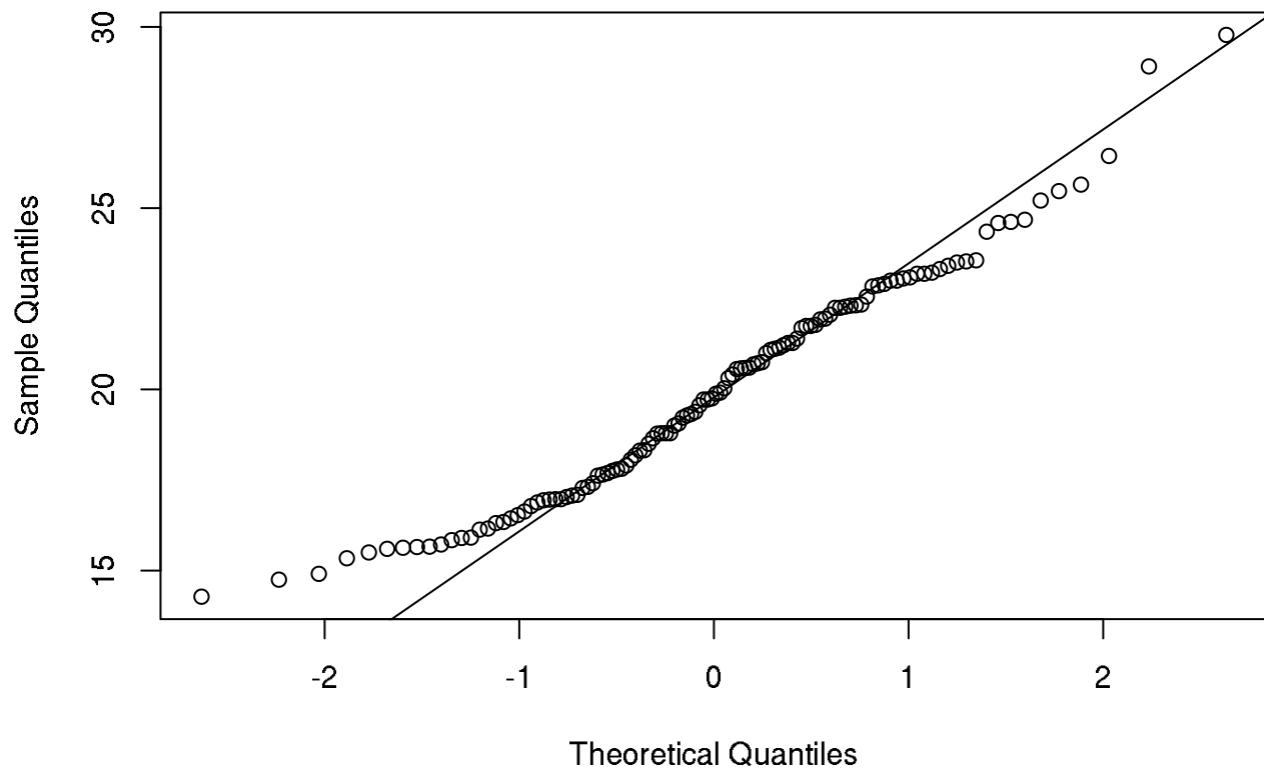
hpt_9_dh_trial_2_time

Min	Median	Mean	Max	StdDev	NoData
14.28	19.81	19.95	29.78	3.14	0

hpt_9_dh_trial_2_time
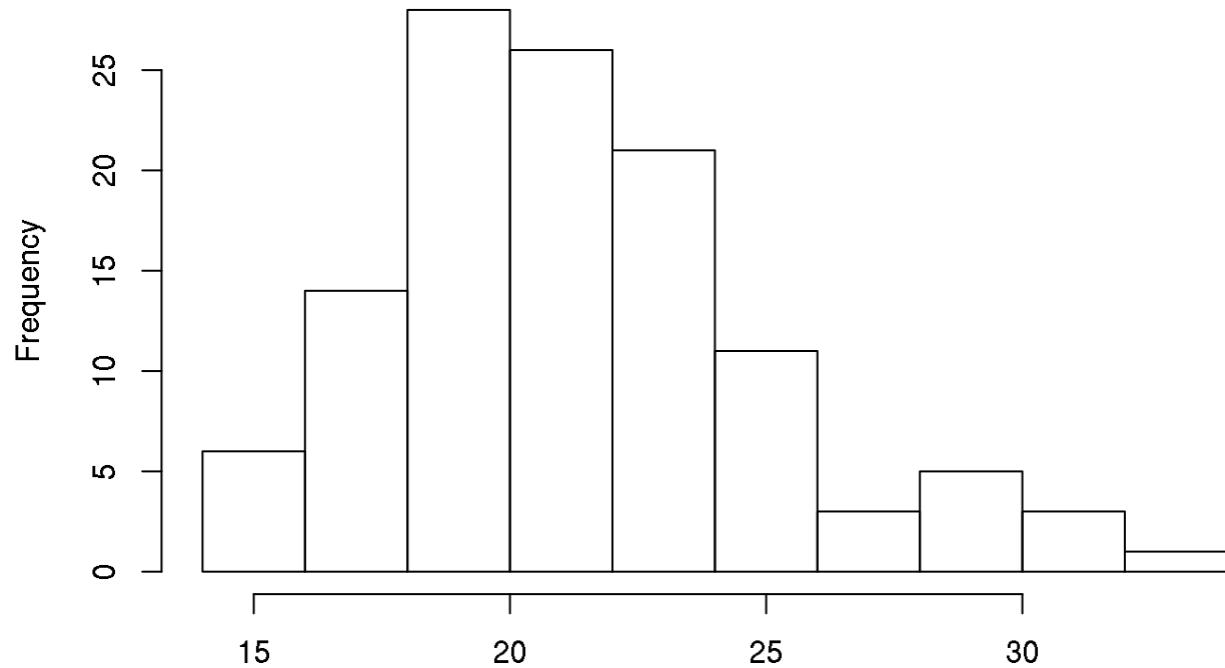
Normal Q-Q Plot
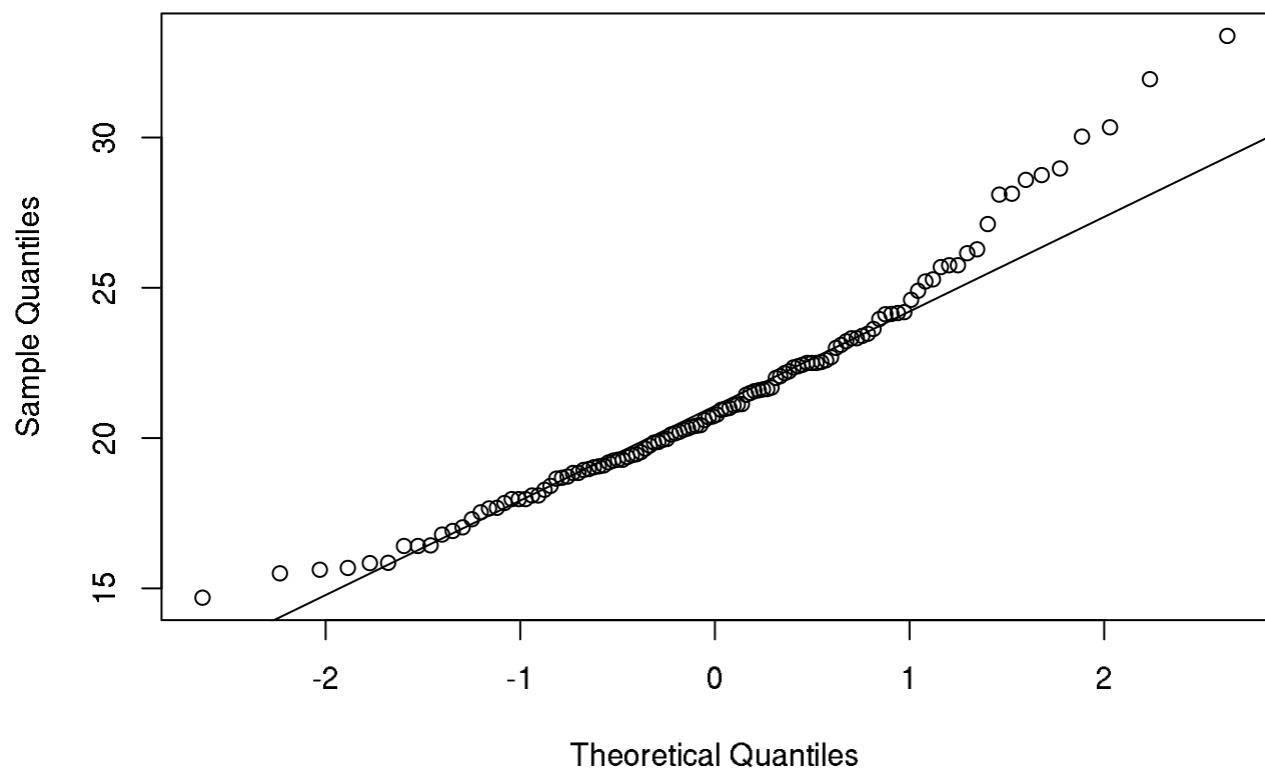
hpt_9_ndh_trial_2_time

Min	Median	Mean	Max	StdDev	NoData
14.69	20.75	21.32	33.38	3.63	0

hpt_9_ndh_trial_2_time
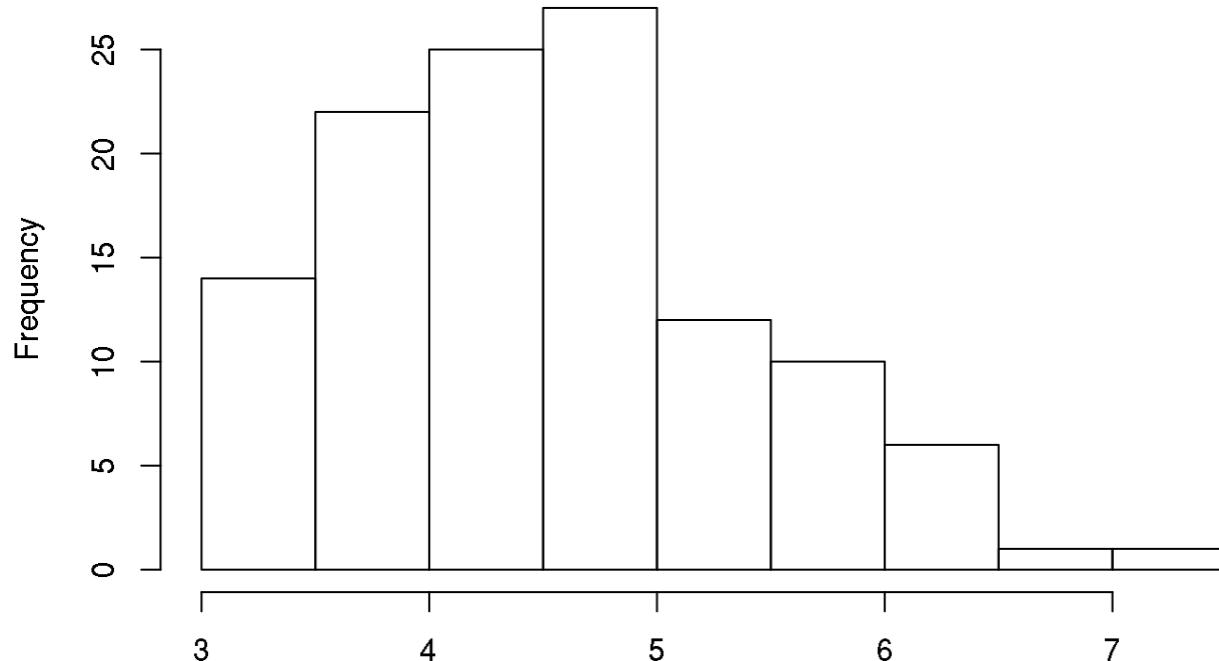
Normal Q-Q Plot
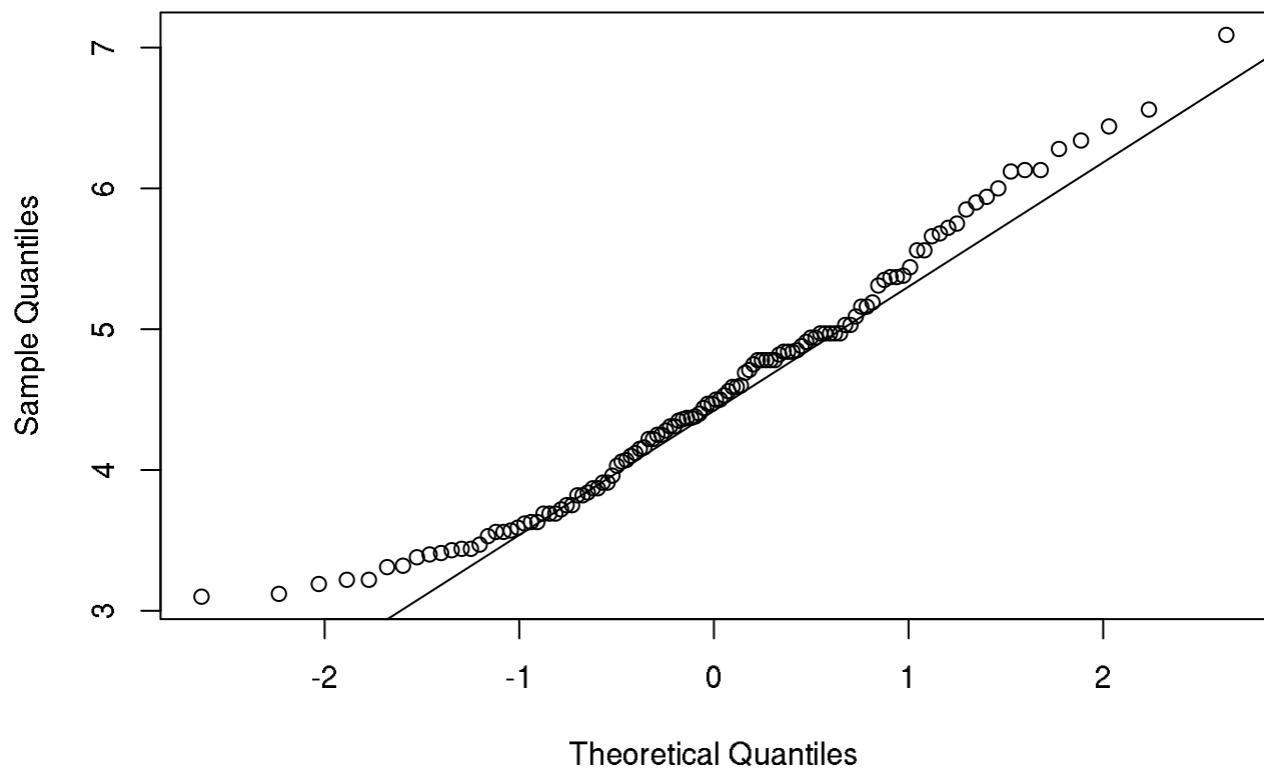
t25_fw_trial_2_time

Min	Median	Mean	Max	StdDev	NoData
3.10	4.48	4.55	7.09	0.88	0

t25_fw_trial_2_time
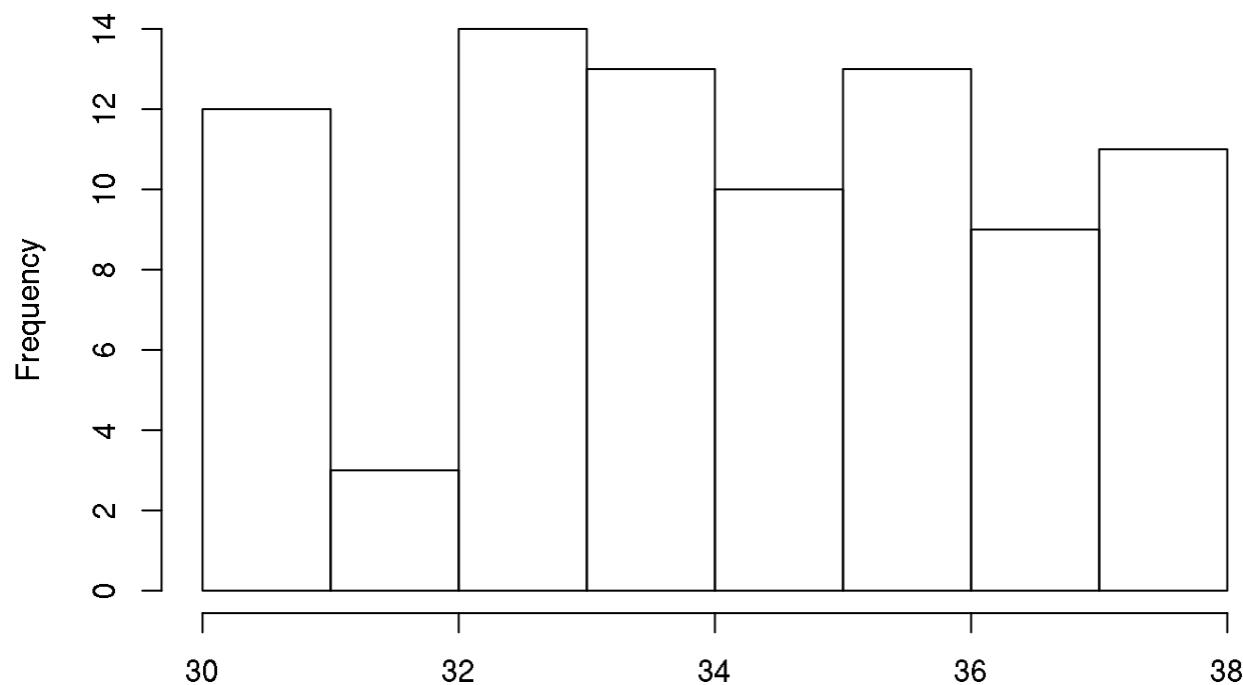
Normal Q-Q Plot
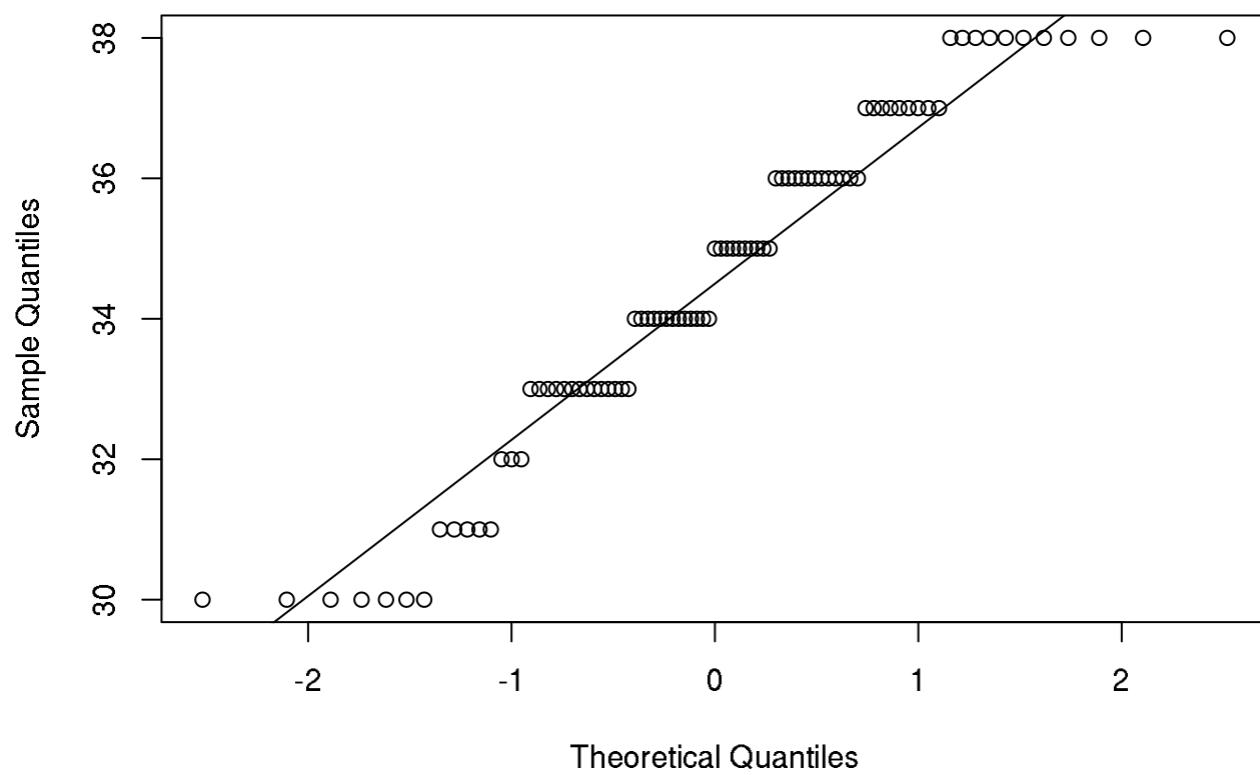
kok_total_score

Min	Median	Mean	Max	StdDev	NoData
30.00	35.00	34.52	38.00	2.39	33

kok_total_score
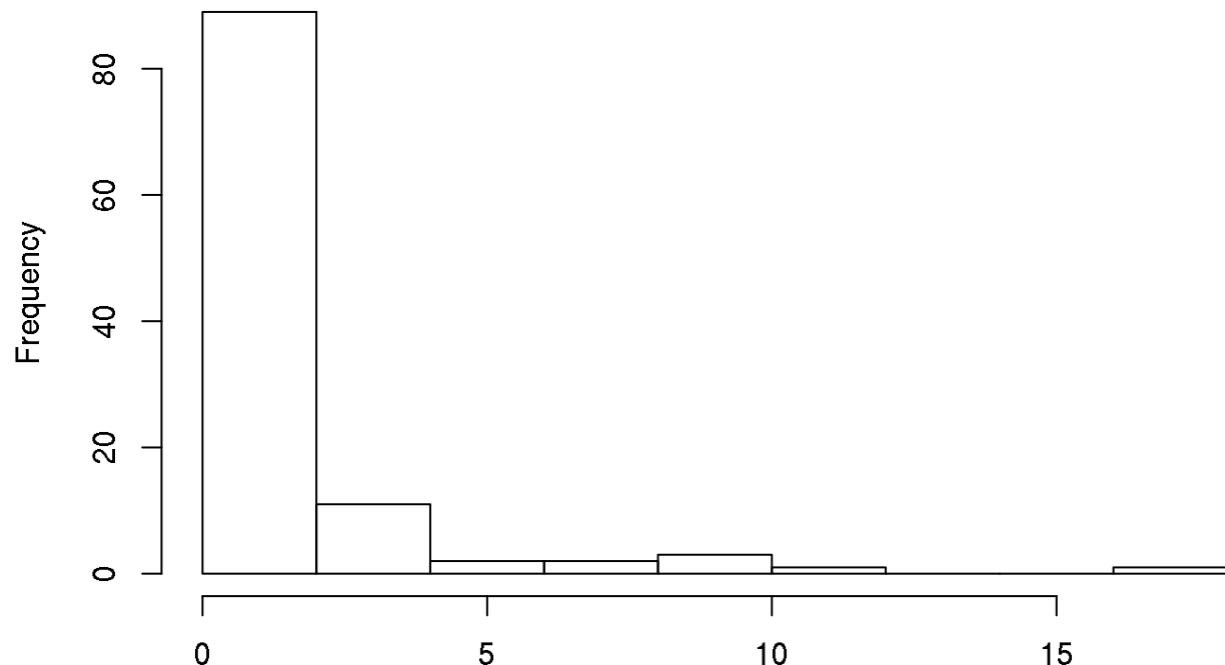
Normal Q-Q Plot
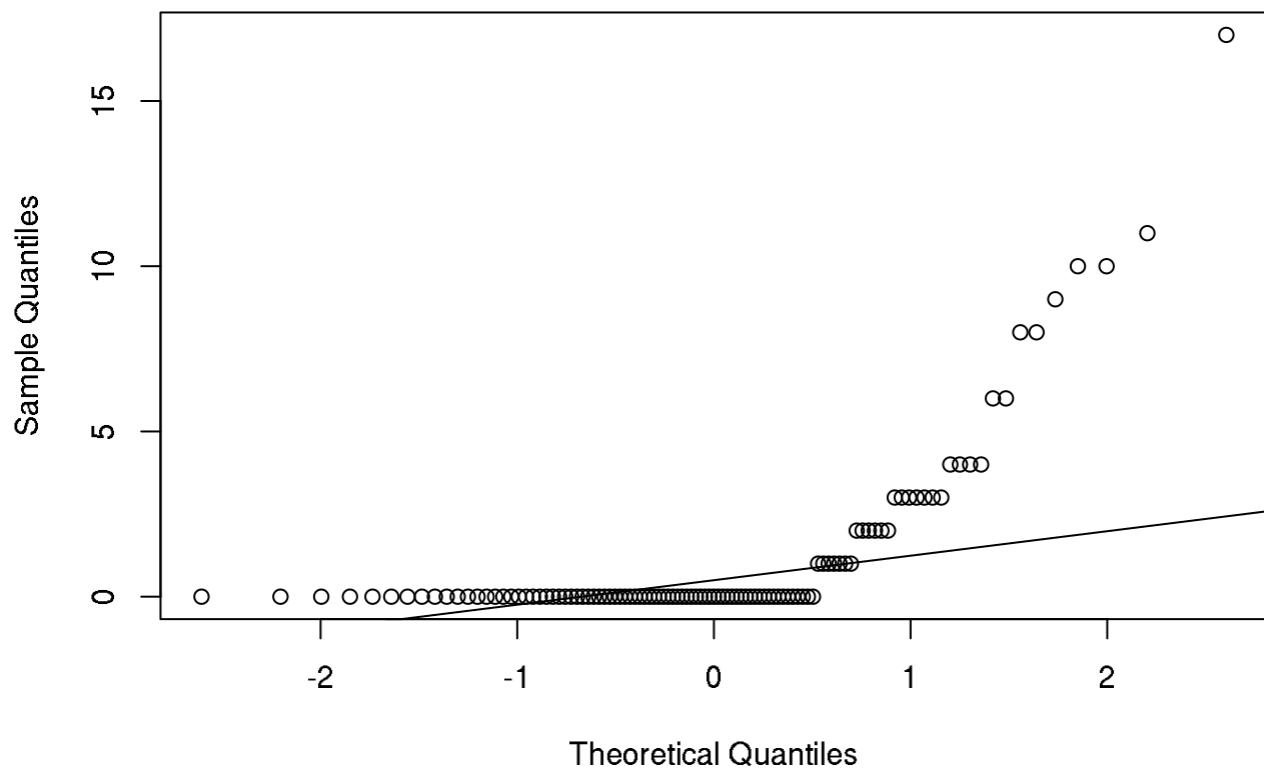
updrs_motor_total_score

Min	Median	Mean	Max	StdDev	NoData
0.00	0.00	1.29	17.00	2.83	9

updrs_motor_total_score
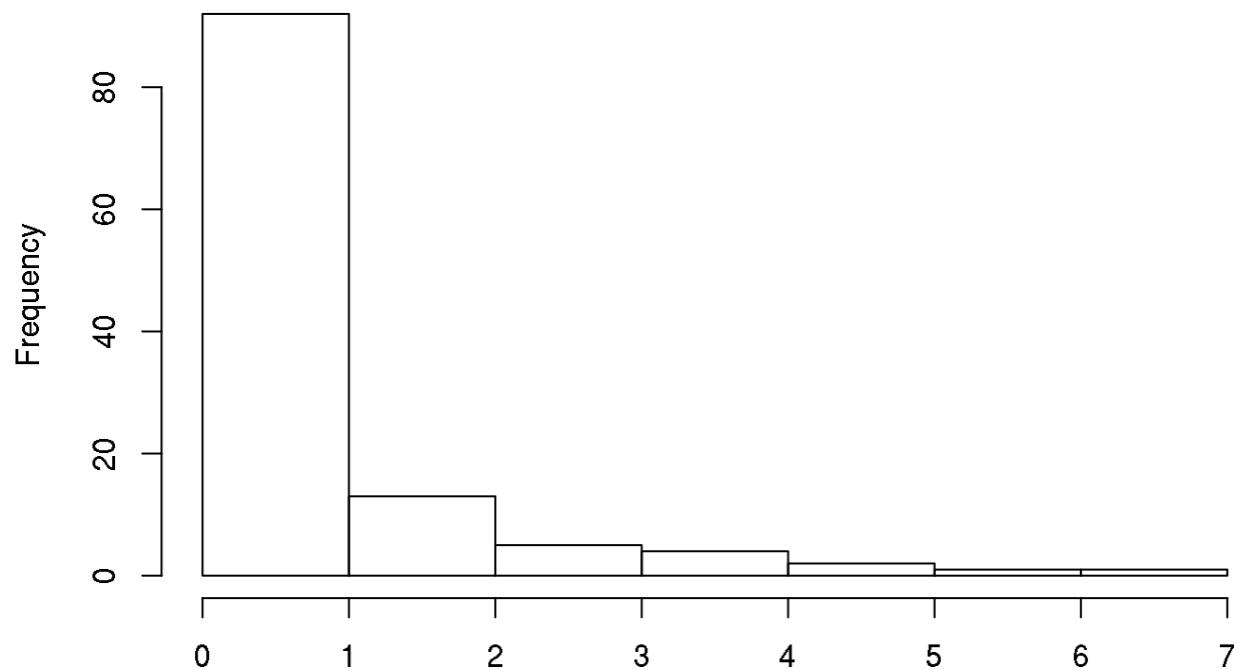
Normal Q-Q Plot
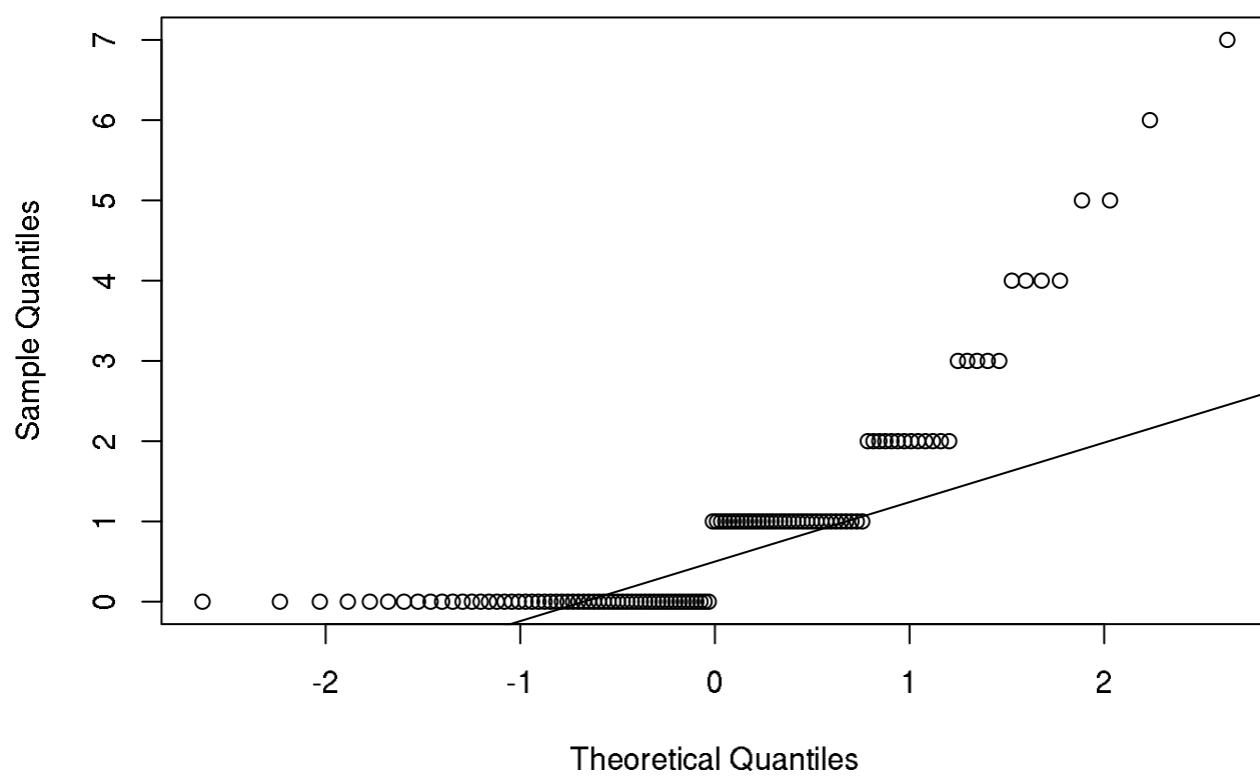
ad_8_score

Min	Median	Mean	Max	StdDev	NoData
0.00	1.00	0.97	7.00	1.37	0

ad_8_score
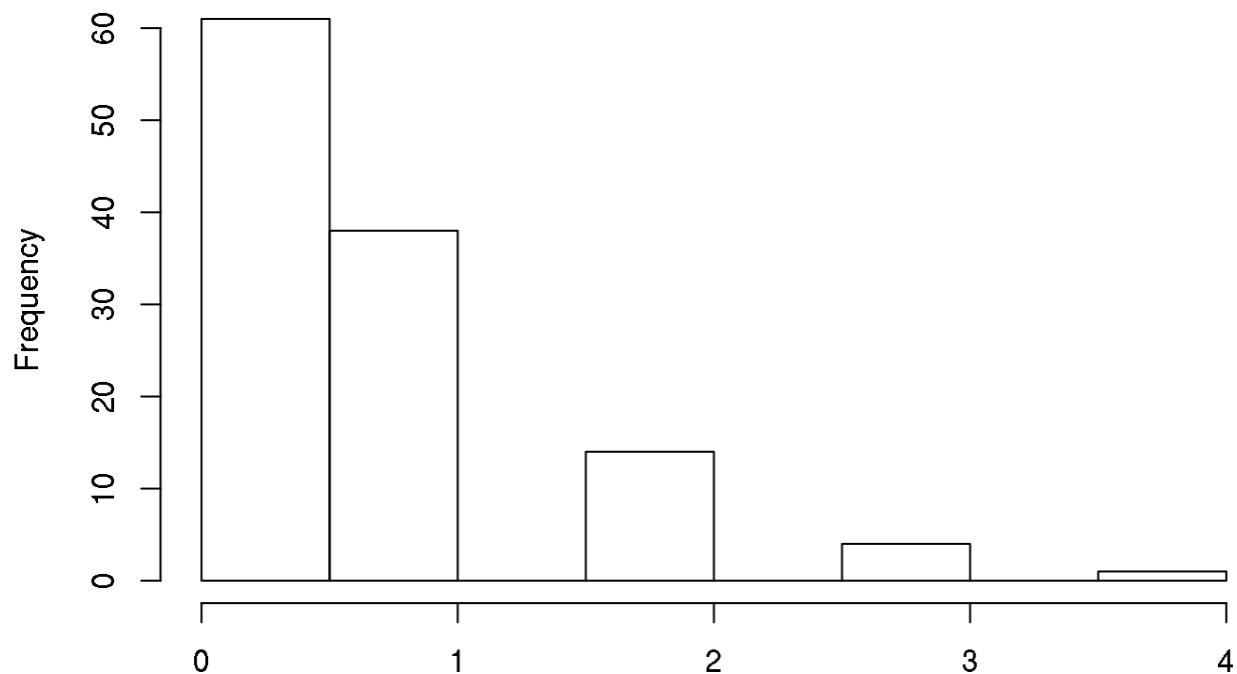
Normal Q-Q Plot
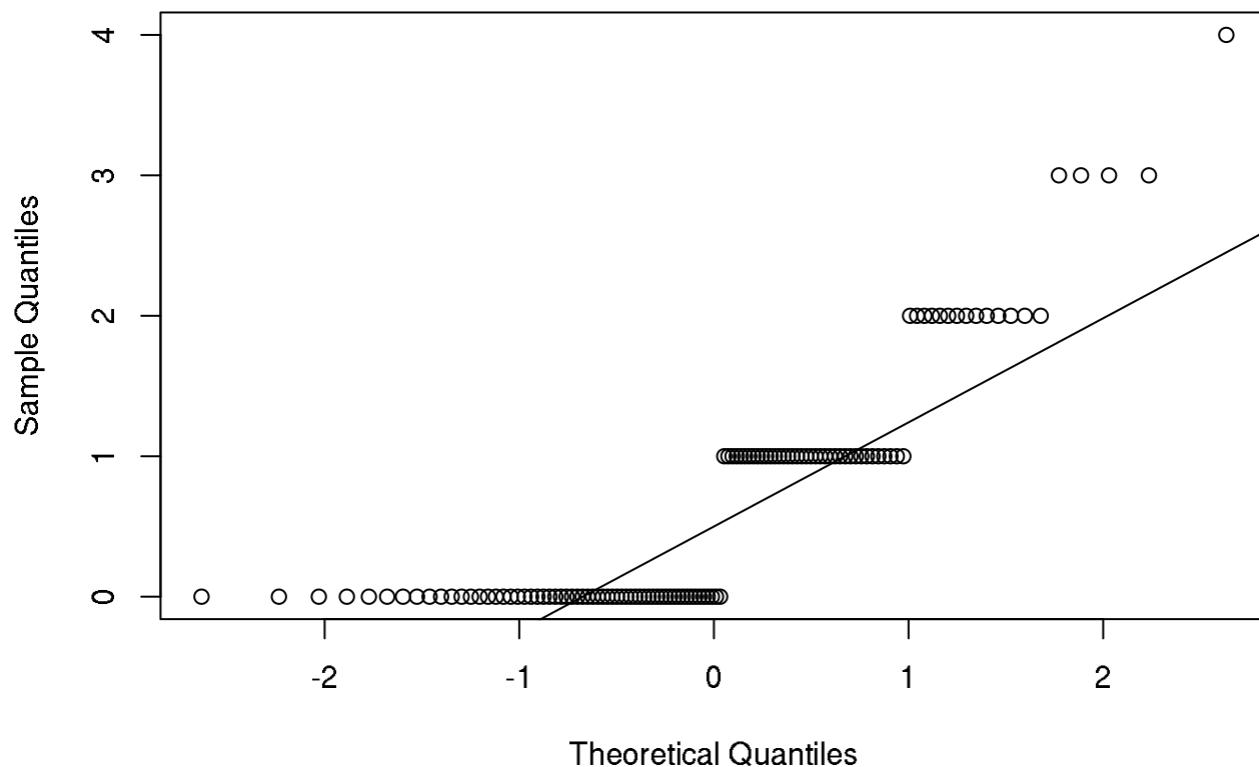
bh_park_scr_score

Min	Median	Mean	Max	StdDev	NoData
0.00	0.00	0.69	4.00	0.87	0

bh_park_scr_score
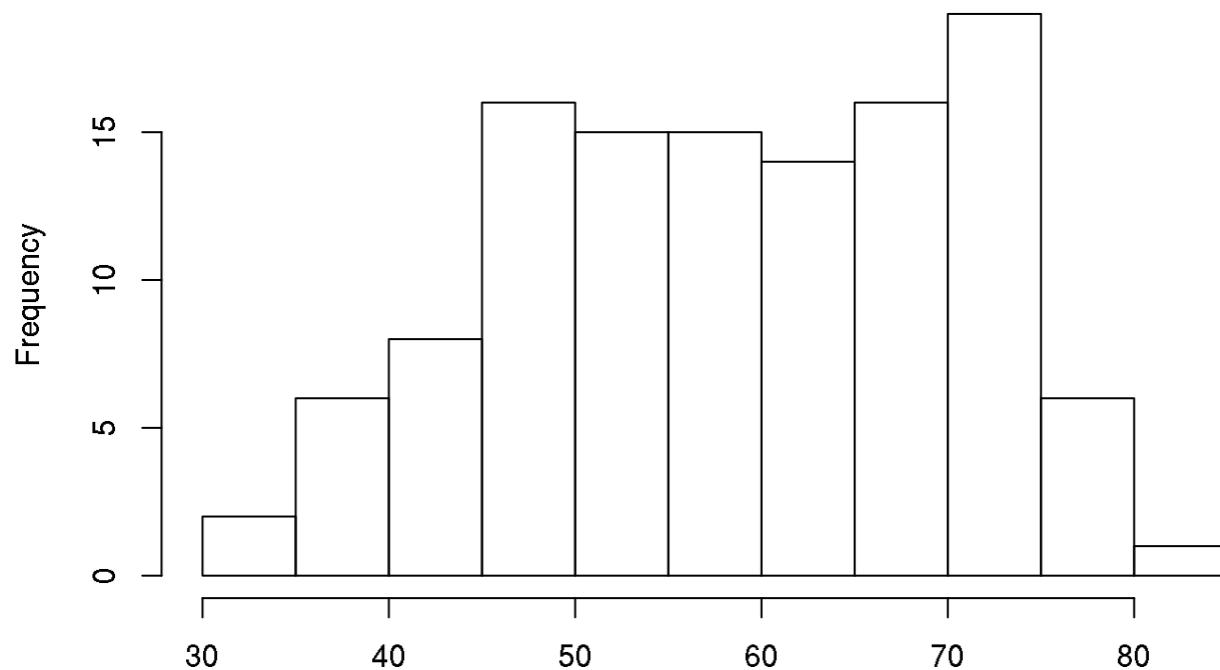
Normal Q-Q Plot
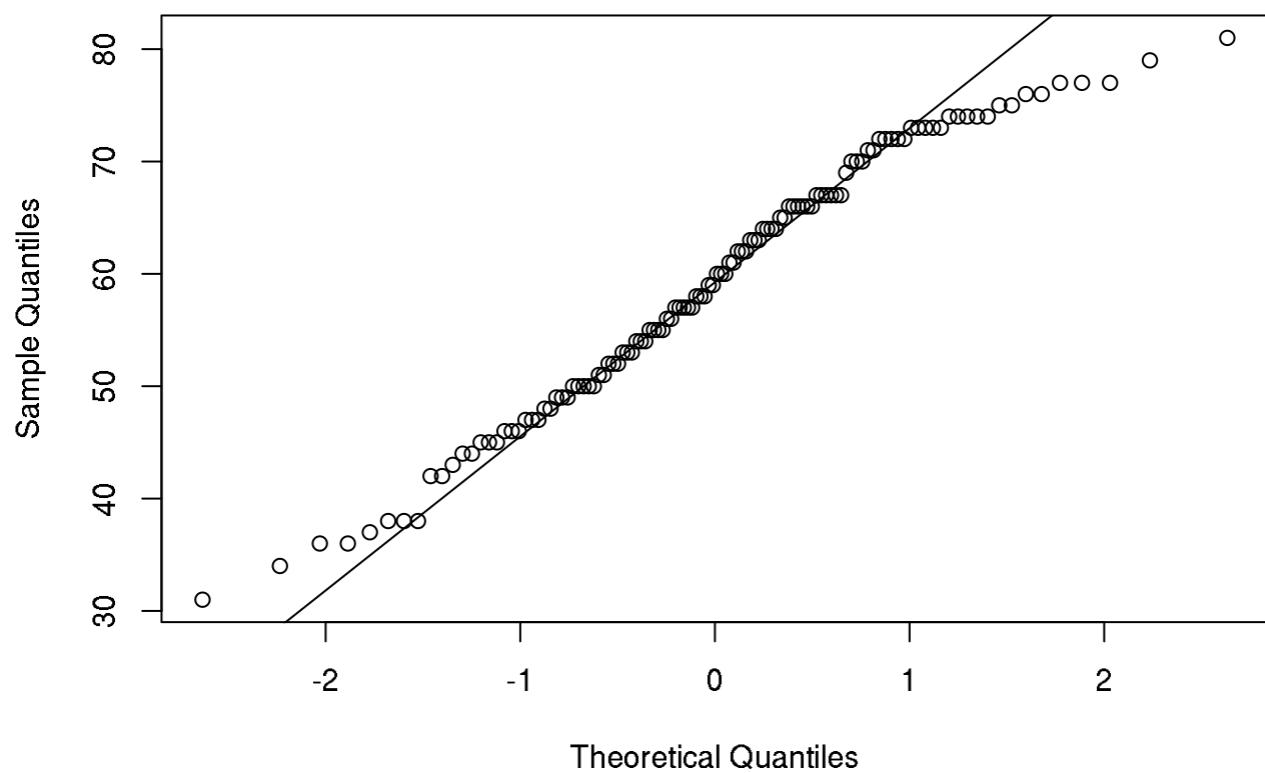
enc_pat_age

Min	Median	Mean	Max	StdDev	NoData
31.00	59.50	59.05	81.00	11.76	0

enc_pat_age
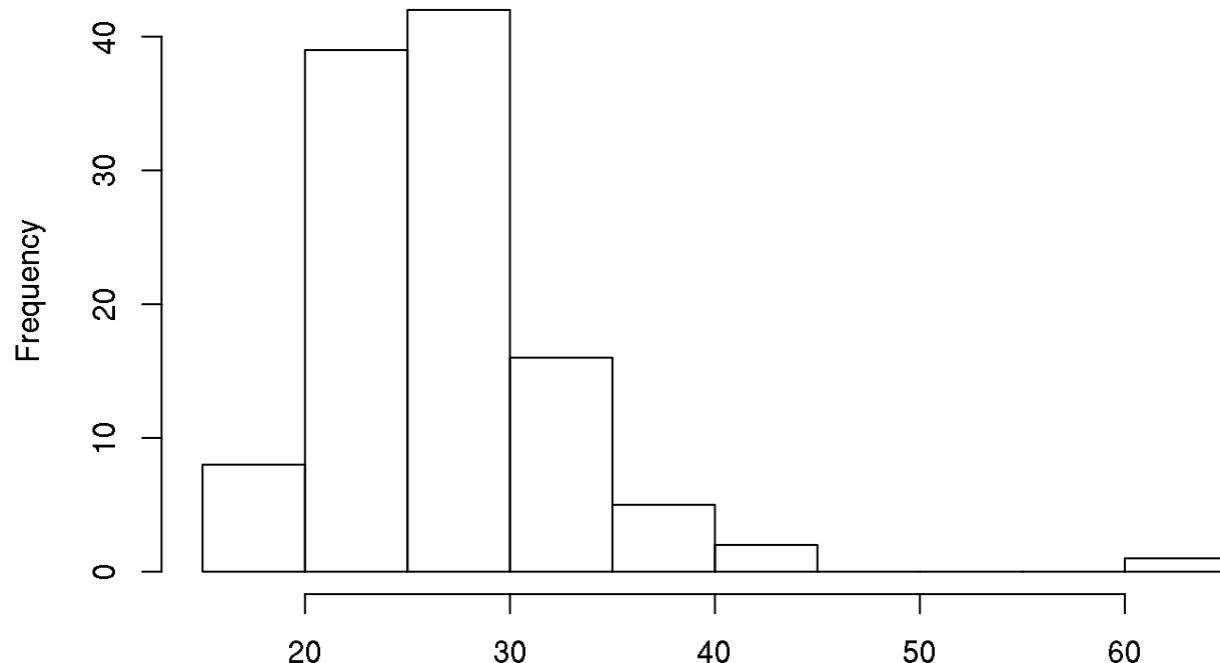
Normal Q-Q Plot
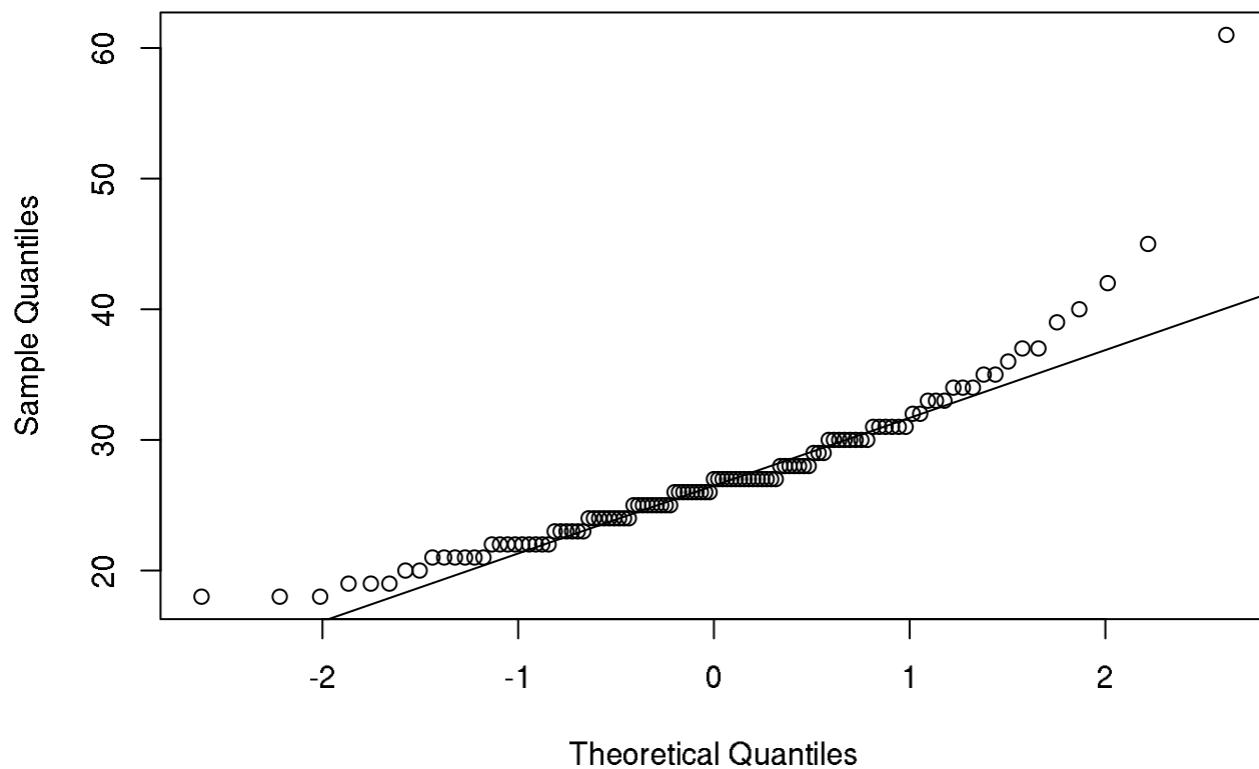
bmi_tmp

Min	Median	Mean	Max	StdDev	NoData
18.00	27.00	27.20	61.00	6.06	5

bmi_tmp
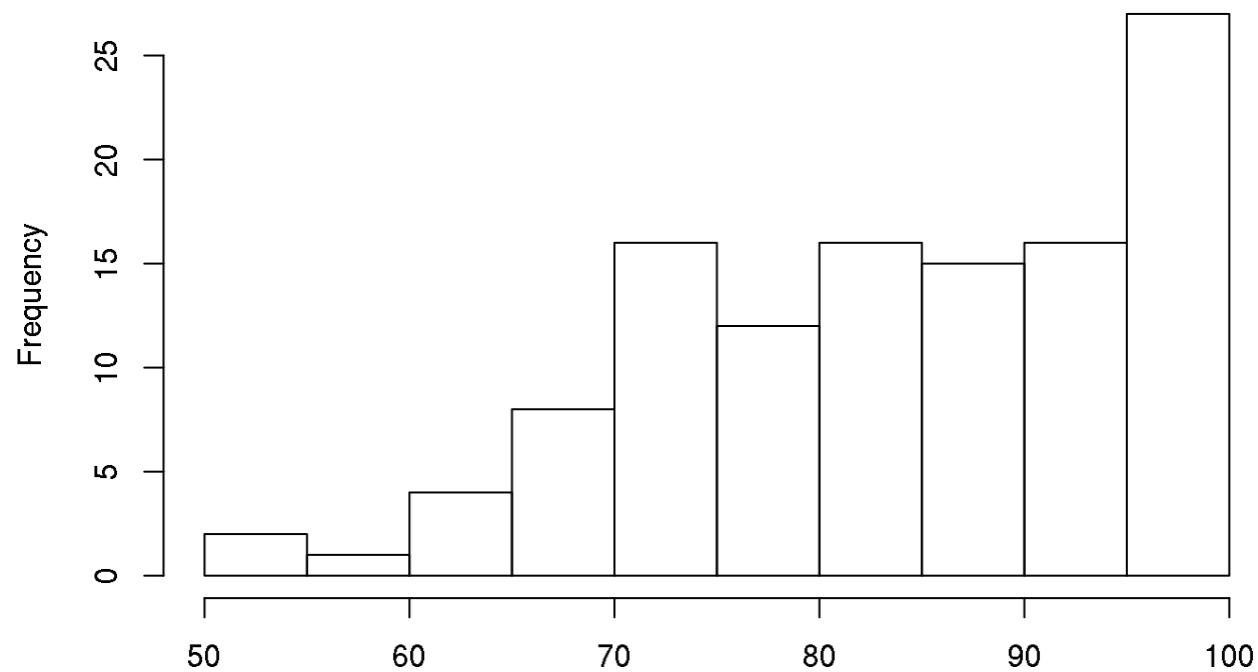
Normal Q-Q Plot
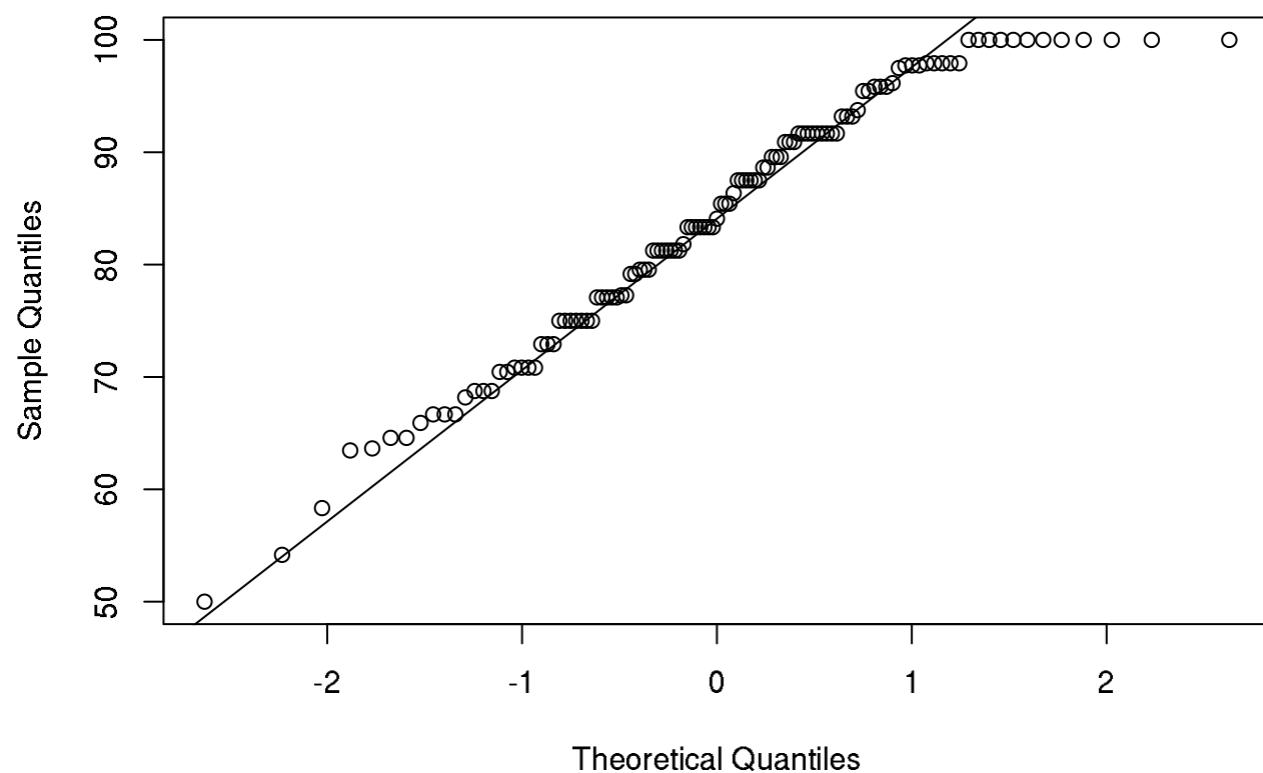
bh_read_assess_score

Min	Median	Mean	Max	StdDev	NoData
50.00	84.09	83.94	100.00	11.68	1

bh_read_assess_score

Normal Q-Q Plot

All Pairwise Correlations

Correlations are shown for significant correlations, p-value < .05/n where n = 55, the number of tests. Thus significance is established for p-value < 9.090909110^{-4}. This is called the Bonferroni correction and accounts for multiple testing problems.
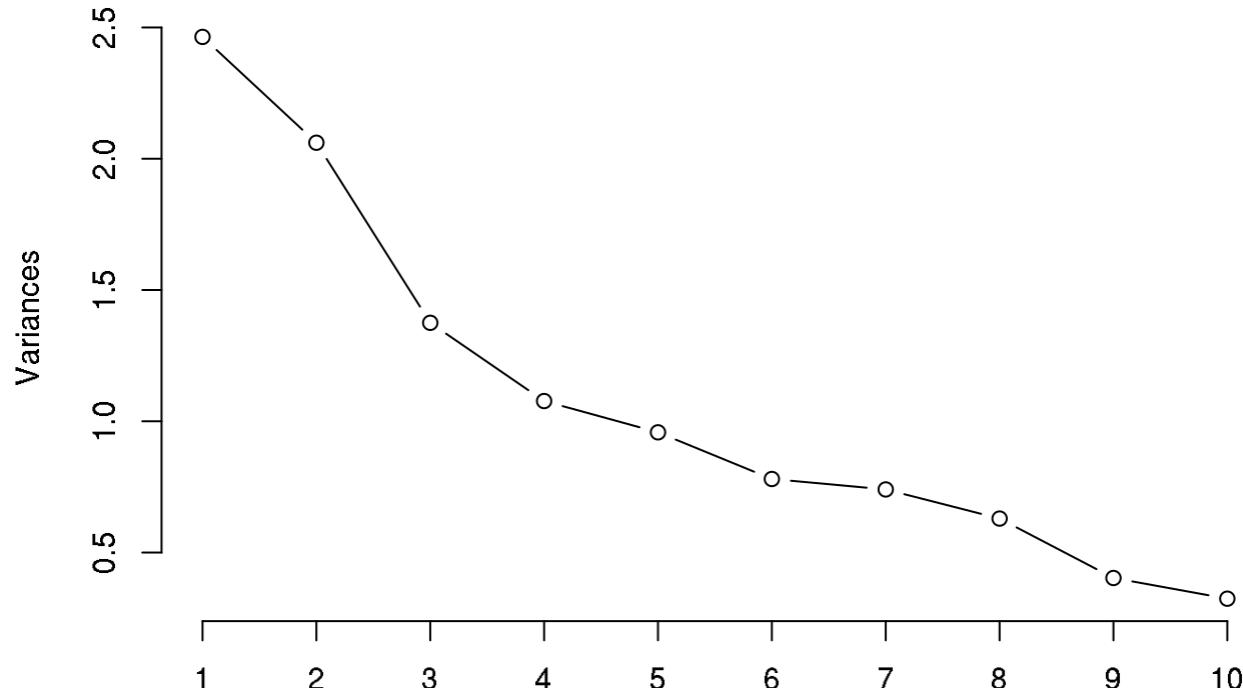
	meddiet	cesd	gad7	isi	9hptdh	9hptnd	25fw	stms	updrs	ad8	park
meddiet	1.00										
cesd		1.00	0.73								
gad7		0.73	1.00								
isi				1.00							
9hptdh					1.00	0.63	0.34				
9hptnd					0.63	1.00					
25fw					0.34		1.00				
stms								1.00			
updrs									1.00		0.39
ad8										1.00	0.33
park									0.39	0.33	1.00

Principal Components, full sample

Explained Variance

Principal components space can only be explored for complete data, N = 78.

Proportion of Variance by principal component

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9	PC10	PC11
Standard deviation	1.5697	1.4356	1.1726	1.0378	0.9787	0.8833	0.8605	0.7934	0.6349	0.5695	0.4328
Proportion of Variance	0.2240	0.1874	0.1250	0.0979	0.0871	0.0709	0.0673	0.0572	0.0367	0.0295	0.0170
Cumulative Proportion	0.2240	0.4114	0.5364	0.6343	0.7214	0.7923	0.8596	0.9168	0.9535	0.9830	1.0000
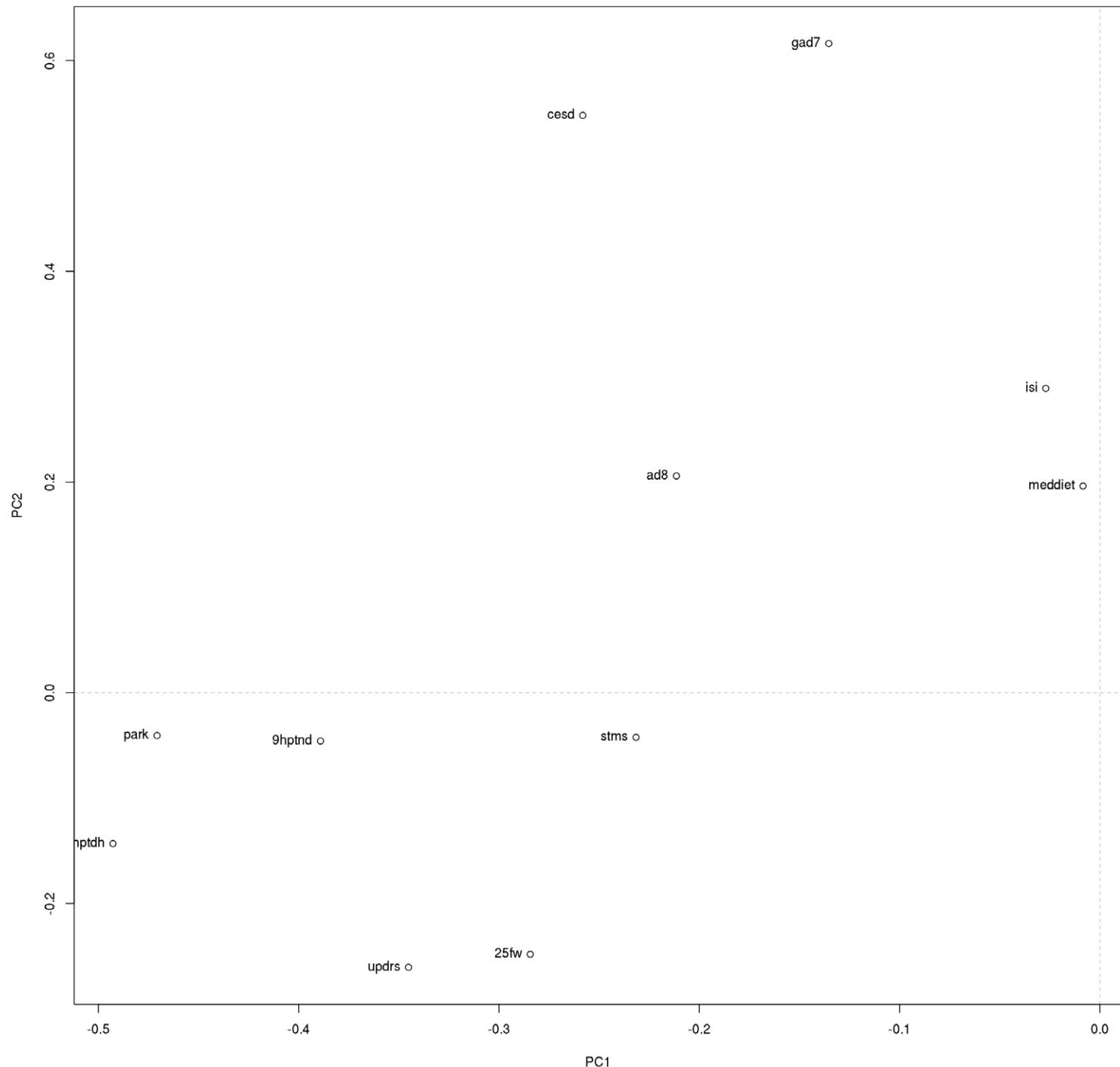
Component Loadings

	PC1	PC2	PC3	PC4
medit_r	-0.01	0.20	0.21	-0.28
ces_d_score	-0.26	0.55	-0.04	0.02
gad_7_score	-0.14	0.62	0.03	0.09
isi_scoring	-0.03	0.29	-0.47	0.13
hpt_9_dh_trial_2_time	-0.49	-0.14	-0.20	-0.18
hpt_9_ndh_trial_2_time	-0.39	-0.05	-0.48	-0.08
t25_fw_trial_2_time	-0.28	-0.25	0.29	0.45
kok_r	-0.23	-0.04	-0.01	0.73
updrs_motor_total_score	-0.35	-0.26	-0.07	-0.32
ad_8_score	-0.21	0.21	0.54	-0.12
bh_park_scr_score	-0.47	-0.04	0.29	-0.12
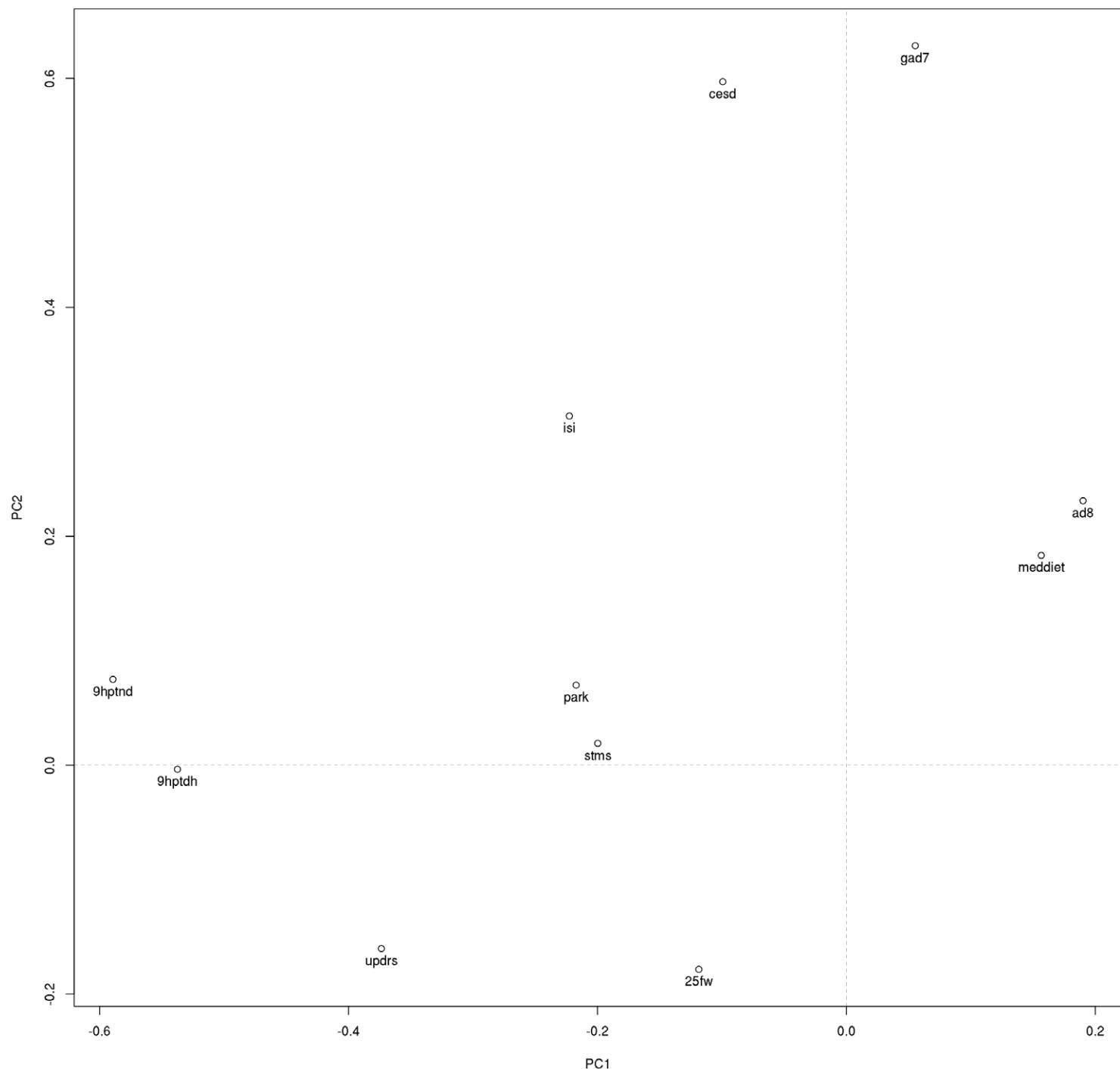
Variable correlations to components

	PC1	PC2	PC3
medit_r	-0.01	0.28	0.24
ces_d_score	-0.41	0.79	-0.05
gad_7_score	-0.21	0.88	0.04
isi_scoring	-0.04	0.41	-0.55
hpt_9_dh_trial_2_time	-0.77	-0.21	-0.24
hpt_9_ndh_trial_2_time	-0.61	-0.07	-0.56
t25_fw_trial_2_time	-0.45	-0.36	0.34
kok_r	-0.36	-0.06	-0.02
updrs_motor_total_score	-0.54	-0.37	-0.08
ad_8_score	-0.33	0.30	0.64
bh_park_scr_score	-0.74	-0.06	0.34

Variable loadings plotted in component space

Varimax Rotation

	PC1	PC2	PC3
medit_r	0.16	0.18	0.15
ces_d_score	-0.10	0.60	0.05
gad_7_score	0.06	0.63	0.03
isi_scoring	-0.22	0.31	-0.40
hpt_9_dh_trial_2_time	-0.54	-0.00	0.13
hpt_9_ndh_trial_2_time	-0.59	0.07	-0.17
t25_fw_trial_2_time	-0.12	-0.18	0.42
kok_r	-0.20	0.02	0.12
updrs_motor_total_score	-0.37	-0.16	0.16

ad_8_score	0.19	0.23	0.54
bh_park_scr_score	-0.22	0.07	0.50

All Pairwise Correlations, Secondary analysis

Correlations are shown for significant correlations, p-value < .05/n where n = 91, the number of tests. Thus significance is established for p-value < 5.494505510^{-4}. This is called the Bonferroni correction and accounts for multiple testing problems.
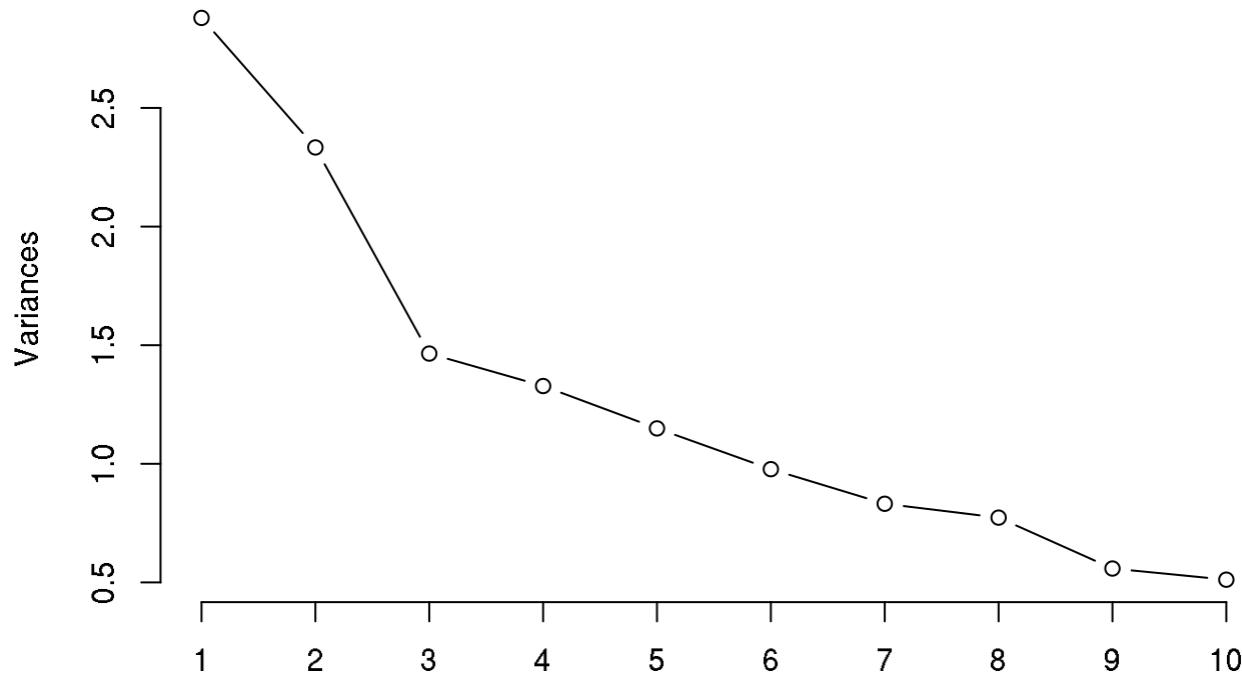
	meddiet	cesd	gad7	isi	9hptdh	9hptnd	25fw	stms	updrs	ad8	park	ageatstudy	bmi	readiness
meddiet	1.00													
cesd		1.00	0.73											
gad7		0.73	1.00											
isi				1.00										
9hptdh					1.00	0.63	0.34					0.50		
9hptnd					0.63	1.00						0.38		
25fw					0.34		1.00					0.34		
stms								1.00						
updrs									1.00		0.39			
ad8										1.00	0.33			
park									0.39	0.33	1.00			
ageatstudy					0.50	0.38	0.34					1.00		
bmi													1.00	
readiness														1.00

Principal Components, full sample

Explained Variance

Principal components space can only be explored for complete data, N = 73.

Proportion of Variance by principal component

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9	PC10	PC11	PC12	PC13	PC14
Standard deviation	1.6969	1.5276	1.2103	1.1523	1.0720	0.9886	0.9119	0.8793	0.7473	0.7152	0.6141	0.6094	0.5386	0.3932
Proportion of Variance	0.2057	0.1667	0.1046	0.0949	0.0821	0.0698	0.0594	0.0552	0.0399	0.0365	0.0269	0.0265	0.0207	0.0110
Cumulative Proportion	0.2057	0.3724	0.4770	0.5718	0.6539	0.7237	0.7831	0.8384	0.8782	0.9148	0.9417	0.9682	0.9890	1.0000

Component Loadings
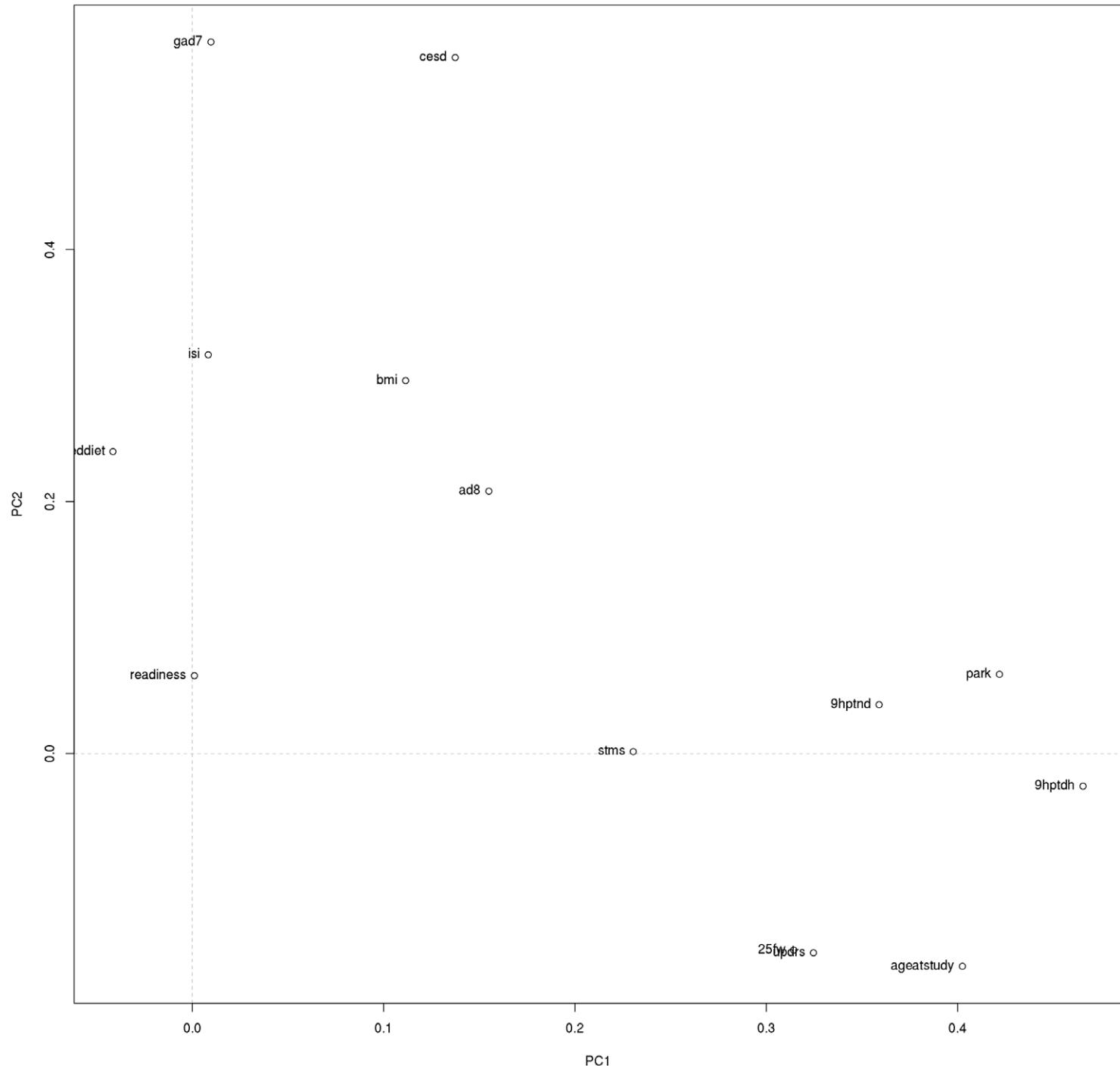
	PC1	PC2	PC3	PC4
medit_r	-0.04	0.24	-0.08	0.57
ces_d_score	0.14	0.55	0.01	-0.12
gad_7_score	0.01	0.56	0.15	-0.17
isi_scoring	0.01	0.32	-0.35	-0.25
hpt_9_dh_trial_2_time	0.47	-0.03	-0.18	-0.03
hpt_9_ndh_trial_2_time	0.36	0.04	-0.37	-0.27
t25_fw_trial_2_time	0.31	-0.16	0.09	0.37
kok_r	0.23	0.00	0.00	0.06
updrs_motor_total_score	0.32	-0.16	0.04	0.03
ad_8_score	0.15	0.21	0.56	0.12
bh_park_scr_score	0.42	0.06	0.24	0.16
enc_pat_age	0.40	-0.17	0.05	-0.28
bmi_tmp	0.11	0.30	-0.28	0.38
bh_read_assess_score	0.00	0.06	0.47	-0.30

Variable correlations to components
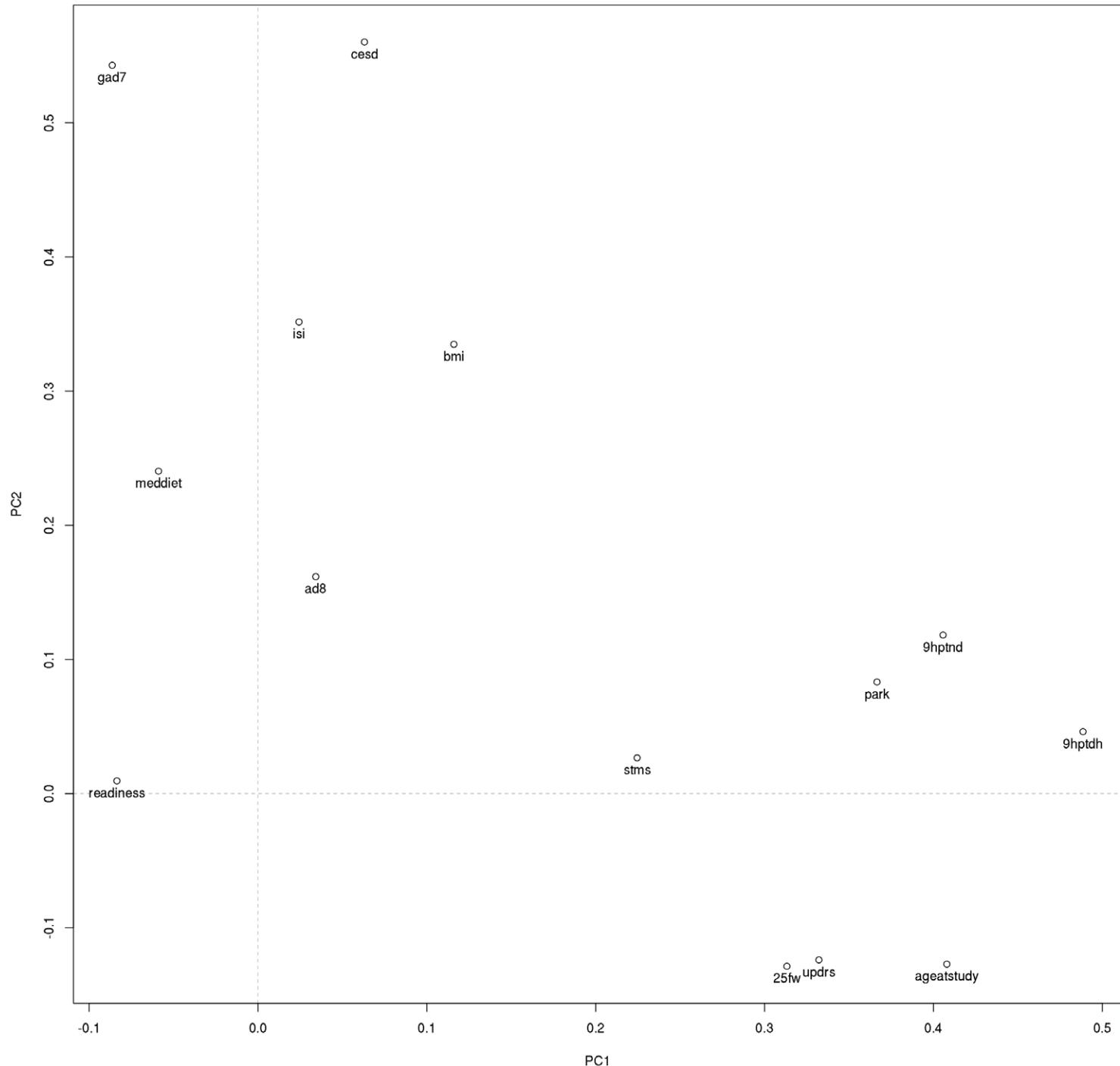
	PC1	PC2	PC3

medit_r	-0.07	0.37	-0.09
ces_d_score	0.23	0.84	0.01
gad_7_score	0.02	0.86	0.18
isi_scoring	0.01	0.48	-0.42
hpt_9_dh_trial_2_time	0.79	-0.04	-0.22
hpt_9_ndh_trial_2_time	0.61	0.06	-0.44
t25_fw_trial_2_time	0.53	-0.24	0.11
kok_r	0.39	0.00	0.01
updrs_motor_total_score	0.55	-0.24	0.04
ad_8_score	0.26	0.32	0.68
bh_park_scr_score	0.72	0.10	0.29
enc_pat_age	0.68	-0.26	0.06
bmi_tmp	0.19	0.45	-0.33
bh_read_assess_score	0.00	0.09	0.57

Variable loadings plotted in component space

Varimax Rotation

	PC1	PC2	PC3
medit_r	-0.06	0.24	-0.06
ces_d_score	0.06	0.56	0.08
gad_7_score	-0.09	0.54	0.20
isi_scoring	0.02	0.35	-0.31
hpt_9_dh_trial_2_time	0.49	0.05	-0.10
hpt_9_ndh_trial_2_time	0.41	0.12	-0.29
t25_fw_trial_2_time	0.31	-0.13	0.13
kok_r	0.22	0.03	0.04
updrs_motor_total_score	0.33	-0.12	0.08

ad_8_score	0.03	0.16	0.60
bh_park_scr_score	0.37	0.08	0.31
enc_pat_age	0.41	-0.13	0.10
bmi_tmp	0.12	0.33	-0.23
bh_read_assess_score	-0.08	0.01	0.47