

Online Data Supplement 1: Result of univariate analysis for BOS,STS,CS

Title: PERSONality, Ethical, and PROfessional quality of life in Pediatric/Adult Intensive Nurses study: PERSEPRO PAIN study

Running title: PERSEPRO PAIN study

Yujiro Matsuishi^{1,2†}, Bryan J. Mathis^{3†}, Haruhiko Hoshino^{1,2}, Yuki Enomoto^{1,4}, Nobutake Shimojo¹, Satoru Kawano¹, Hideaki Sakuramoto⁵, Yoshiaki Inoue¹

1Department of Emergency and Critical Care Medicine, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan.

2Pediatric Intensive Care Unit, University of Tsukuba Hospital, Tsukuba, Ibaraki, Japan.

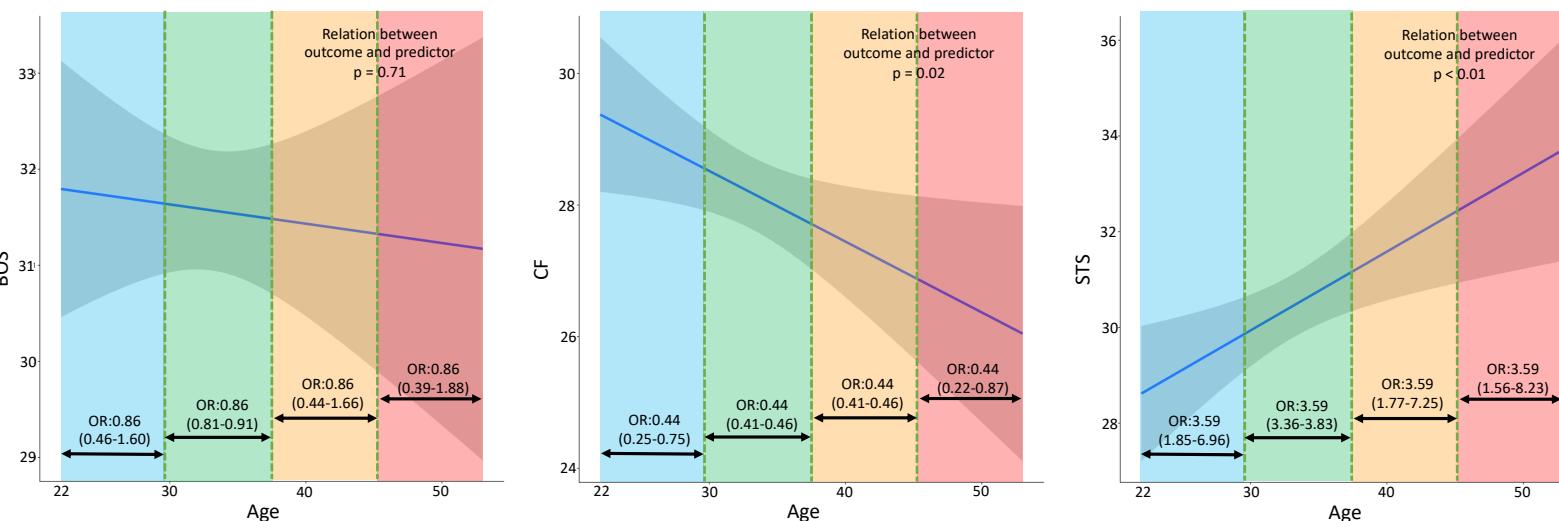
3Medical English Communication Center, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan.

4University of Tsukuba Hospital, Department of Pediatrics, Tsukuba, Ibaraki, Japan.

5Adult Health Nursing, College of Nursing, Ibaraki Christian University, Hitachi, Ibaraki, Japan

†These authors contributed equally to this study.

Age for BOS, STS, CS



Age for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th	22-30	0.86	(0.46-1.60)
25 th -50 th	30-38	0.86	(0.81-0.91)
50 th -75 th	38-45	0.86	(0.44-1.66)
75 th -100 th	45-53	0.86	(0.39-1.88)

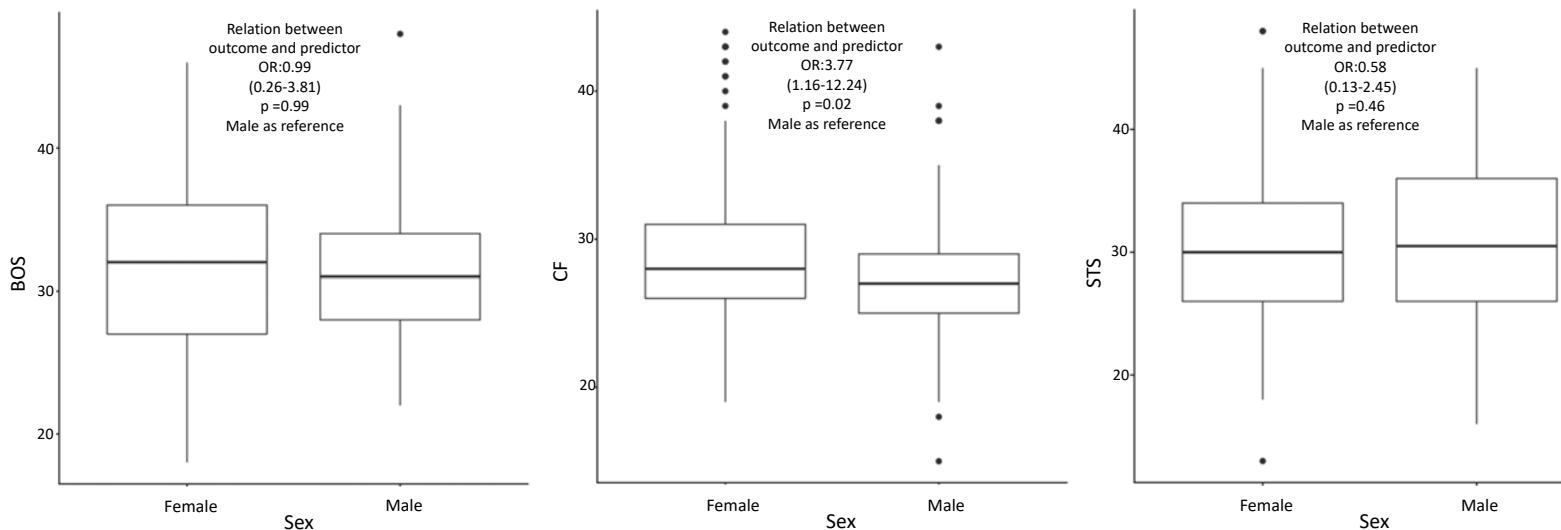
Age for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th	22-30	0.44	(0.25-0.75)
25 th -50 th	30-38	0.44	(0.41-0.46)
50 th -75 th	38-45	0.44	(0.41-0.46)
75 th -100 th	45-53	0.44	(0.22-0.87)

Age for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th	22-30	3.59	(1.85-6.96)
25 th -50 th	30-38	3.59	(3.36-3.83)
50 th -75 th	38-45	3.59	(1.77-7.25)
75 th -100 th	45-53	3.59	(1.56-8.23)

Sex for BOS, STS, CS



Sex for BOS

Reference	Factor	Odds ratio	95%CI	p-value
male	female	0.99	(0.26-3.36)	0.99

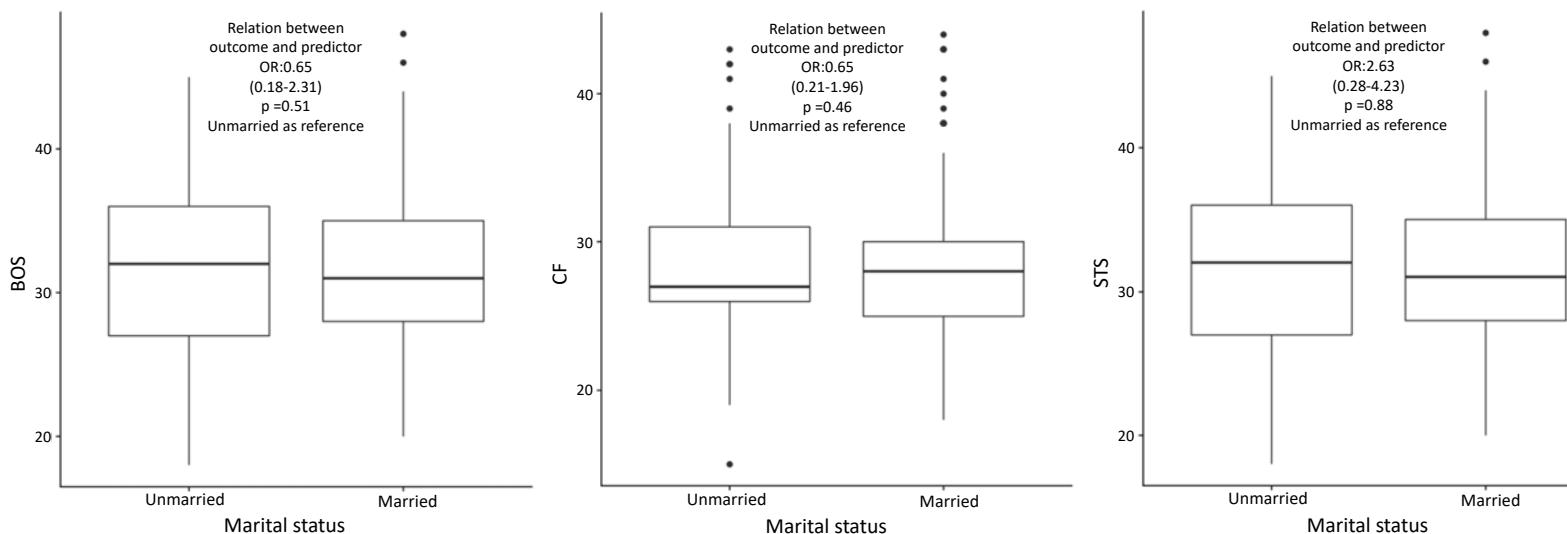
Sex for STS

Reference	Factor	Odds ratio	95%CI	p-value
male	female	3.77	(1.16-12.24)	0.02

Sex for CS

Reference	Factor	Odds ratio	95%CI	p-value
male	female	0.58	(0.13-2.45)	0.46

Marital status for BOS, STS, CS



Marital status for BOS

Reference	Factor	Odds ratio	95%CI	p-value
unmarried	married	0.65	(0.18-2.31)	0.51

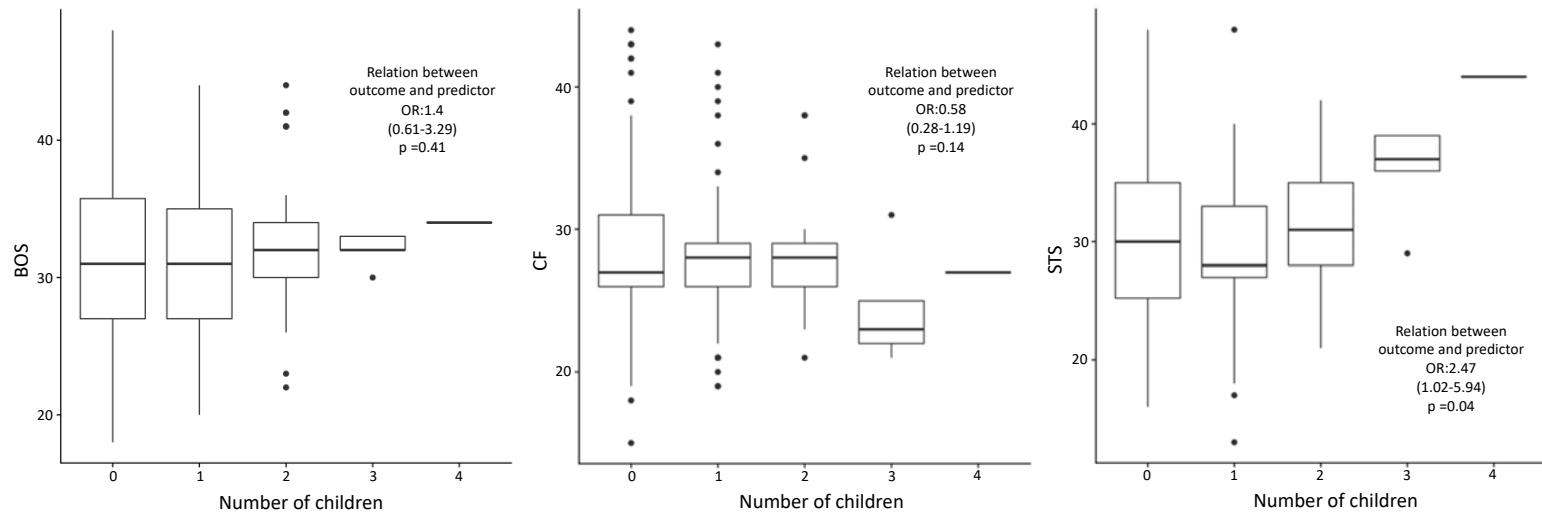
Marital status for STS

Reference	Factor	Odds ratio	95%CI	p-value
unmarried	married	0.98	(0.21-1.96)	0.46

Marital status for CS

Reference	Factor	Odds ratio	95%CI	p-value
unmarried	married	2.63	(0.28-4.23)	0.88

Children for BOS, STS, CS



Children for BOS

Reference	Factor	Odds ratio	95%CI	p-value
Not have	Number of children	1.4	(0.61-3.29)	0.41

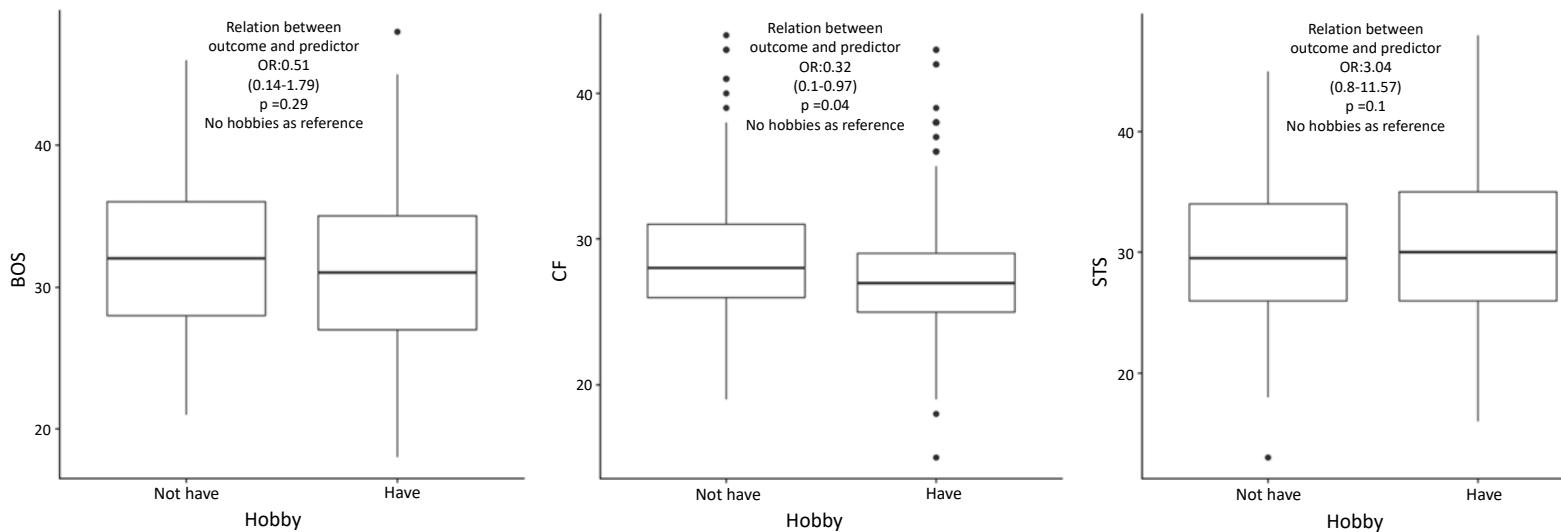
Children for STS

Reference	Factor	Odds ratio	95%CI	p-value
Not have	Number of children	0.58	(0.28-1.19)	0.14

Children for CS

Reference	Factor	Odds ratio	95%CI	p-value
Not have	Number of children	2.47	(1.02-5.94)	0.04

Hobby for BOS, STS, CS



Hobby for BOS

Reference	Factor	Odds ratio	95%CI	p-value
No hobbies	Having hobby	0.51	(0.14-1.79)	0.29

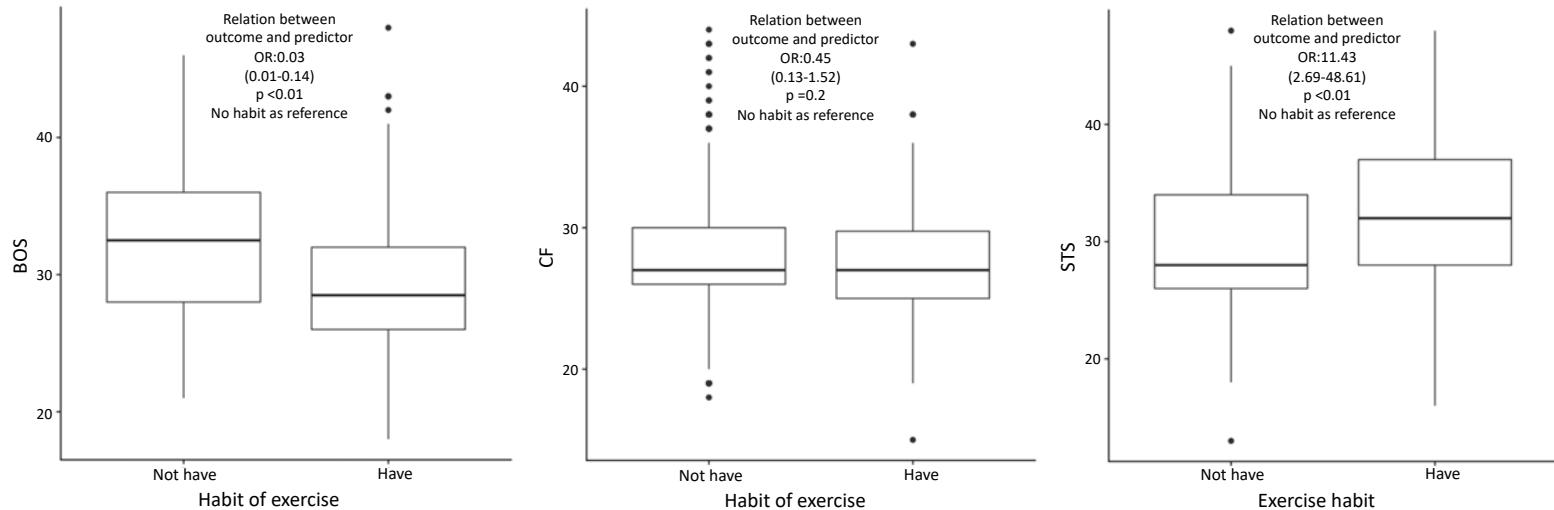
Hobby for STS

Reference	Factor	Odds ratio	95%CI	p-value
No hobbies	Having hobby	0.32	(0.1-0.97)	0.04

Hobby for CS

Reference	Factor	Odds ratio	95%CI	p-value
No hobbies	Having hobby	3.04	(0.8-11.57)	0.1

Exercise for BOS, STS, CS



Exercise for BOS

Reference	Factor	Odds ratio	95%CI	p-value
No habit	Habit	0.03	(0.01-0.14)	>0.01

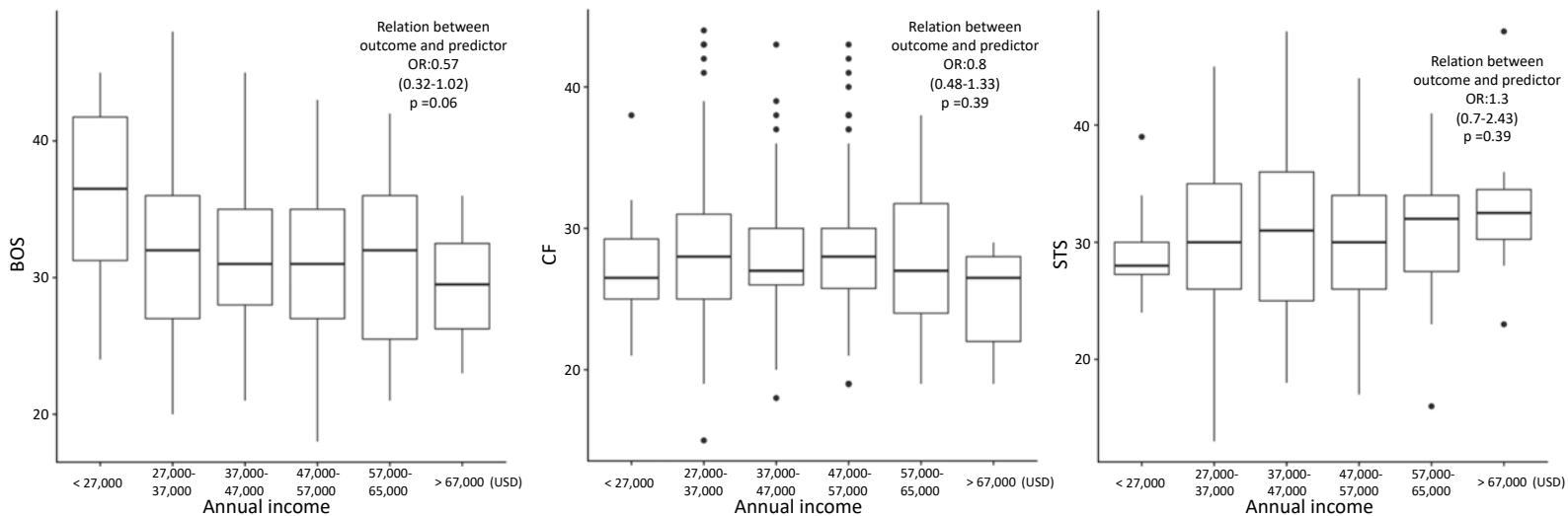
Exercise for STS

Reference	Factor	Odds ratio	95%CI	p-value
No habit	Habit	0.45	(0.13-1.52)	0.2

Exercise for CS

Reference	Factor	Odds ratio	95%CI	p-value
No habit	Habit	11.43	(2.69-48.61)	>0.01

Annual income for BOS, STS, CS



Annual income for BOS

Reference	Factor	Odds ratio	95%CI	p-value
<27,000	Degree of annual income	0.57	(0.32-1.02)	0.06

Annual income for STS

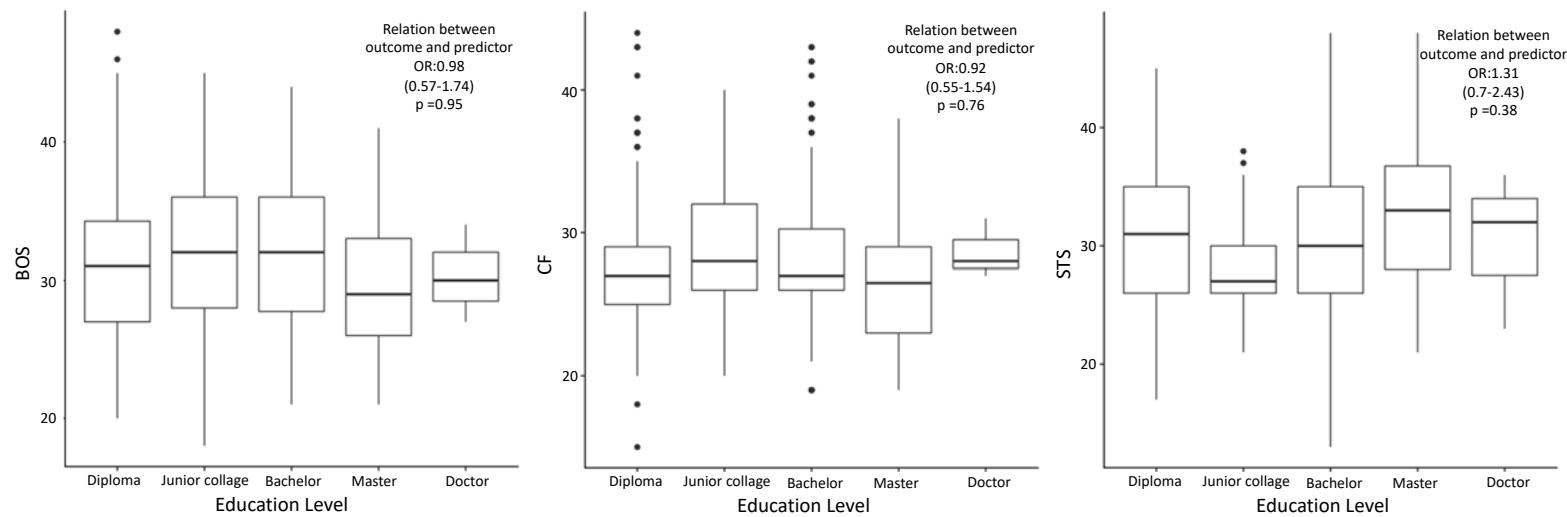
Reference	Factor	Odds ratio	95%CI	p-value
<27,000	Degree of annual income	0.8	(0.48-1.33)	0.39

Annual income for CS

Reference	Factor	Odds ratio	95%CI	p-value
<27,000	Degree of annual income	1.3	(0.7-2.43)	0.39

We categorized the annual income as follow:

Education level for BOS, STS, CS



Education level for BOS

Reference	Factor	Odds ratio	95%CI	p-value
Diploma	Degree of education level	0.98	(0.57-1.74)	0.95

Education level for STS

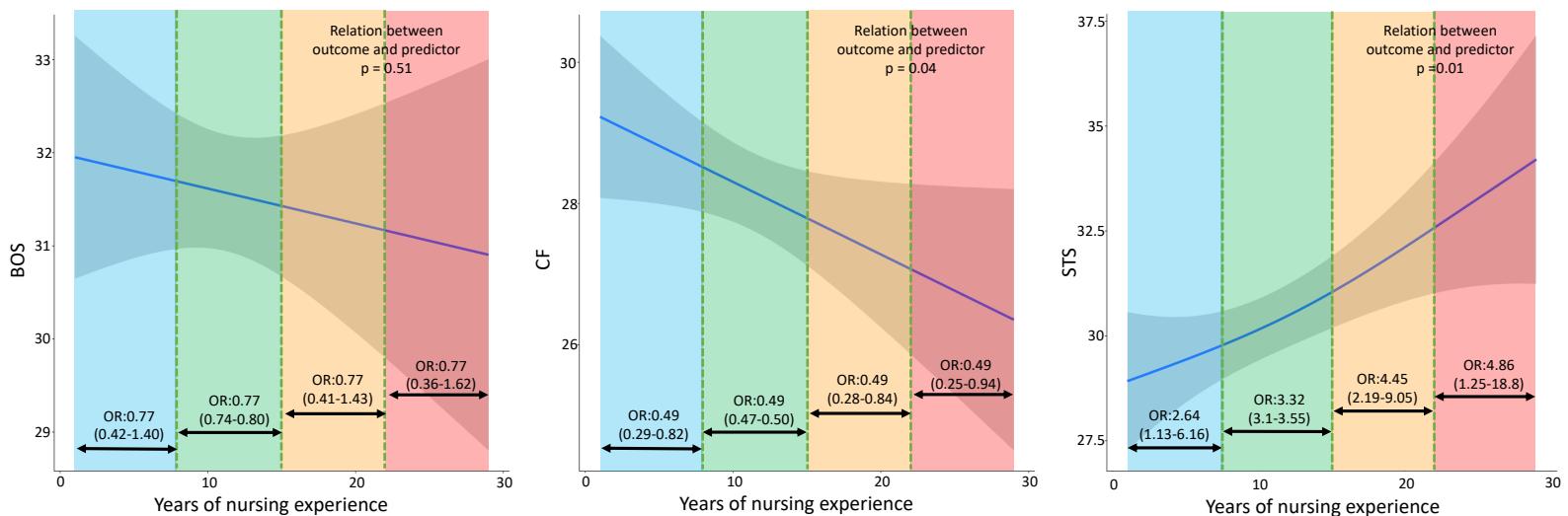
Reference	Factor	Odds ratio	95%CI	p-value
Diploma	Degree of education level	0.92	(0.55-1.54)	0.76

Education level for CS

Reference	Factor	Odds ratio	95%CI	p-value
Diploma	Degree of education level	1.31	(0.7-2.43)	0.38

We categorized the education level as follow:

Years of nursing experience for BOS, STS, CS



Years of nursing experience for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th	22-30	0.77	(0.42-1.40)
25 th -50 th	30-38	0.77	(0.74-0.80)
50 th -75 th	38-45	0.77	(0.41-1.43)
75 th -100 th	45-53	0.77	(0.36-1.62)

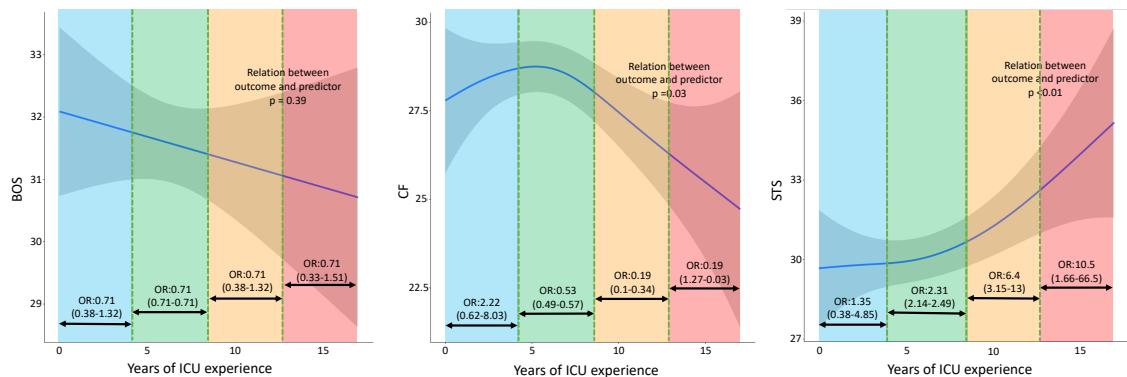
Years of nursing experience for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th	22-30	0.49	(0.29-0.82)
25 th -50 th	30-38	0.49	(0.47-0.50)
50 th -75 th	38-45	0.49	(0.28-0.84)
75 th -100 th	45-53	0.49	(0.25-0.94)

Years of nursing experience for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th	22-30	2.64	(1.85-6.96)
25 th -50 th	30-38	3.32	(3.36-3.83)
50 th -75 th	38-45	4.45	(2.19-9.05)
75 th -100 th	45-53	4.86	(1.25-18.8)

Years of ICU experience for BOS, STS, CS



Years of ICU experience for BOS

reference	factor	Odds ratio	95%CI	p-value
Zero	Years			

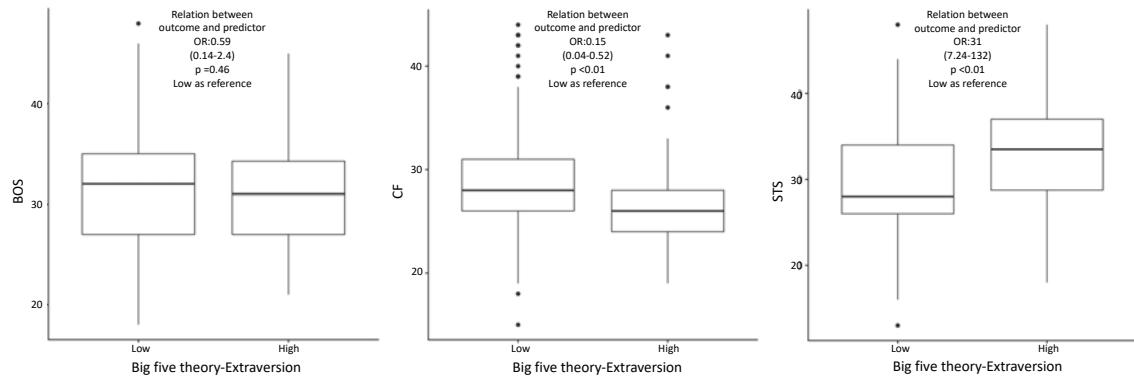
Years of ICU experience for STS

reference	factor	Odds ratio	95%CI	p-value
Zero	Years			

Years of ICU experience for CS

reference	factor	Odds ratio	95%CI	p-value
Zero	Years			

Big five theory-Extraversion for BOS, STS, CS



Extraversion for BOS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

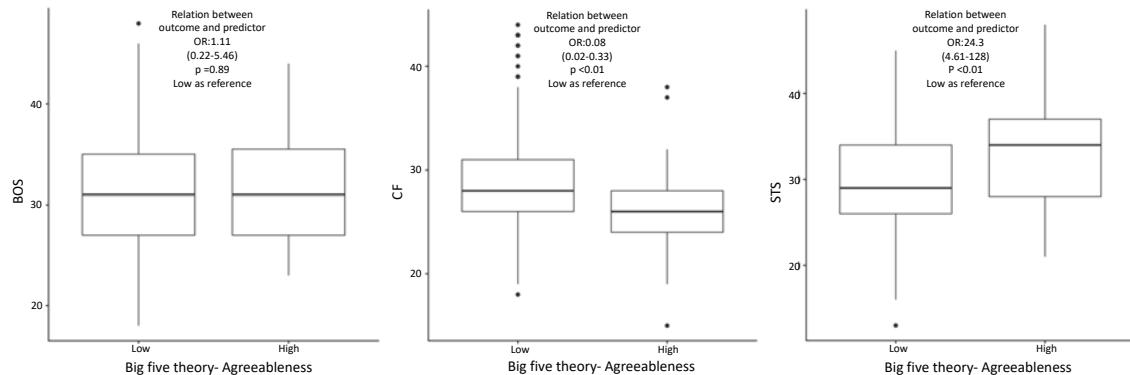
Extraversion for STS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Extraversion for CS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Big five theory- Agreeableness for BOS, STS, CS



Agreeableness for BOS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

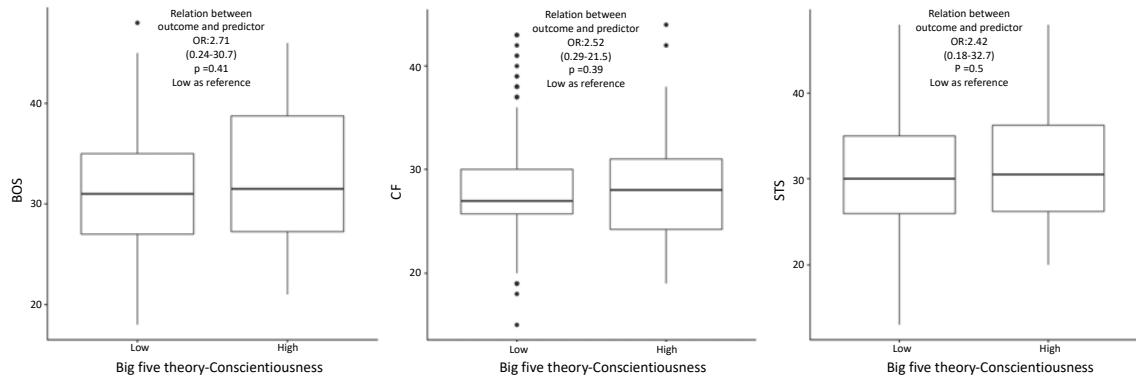
Agreeableness for STS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Agreeableness for CS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Big five theory- Conscientiousness for BOS, STS, CS



Conscientiousness for BOS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

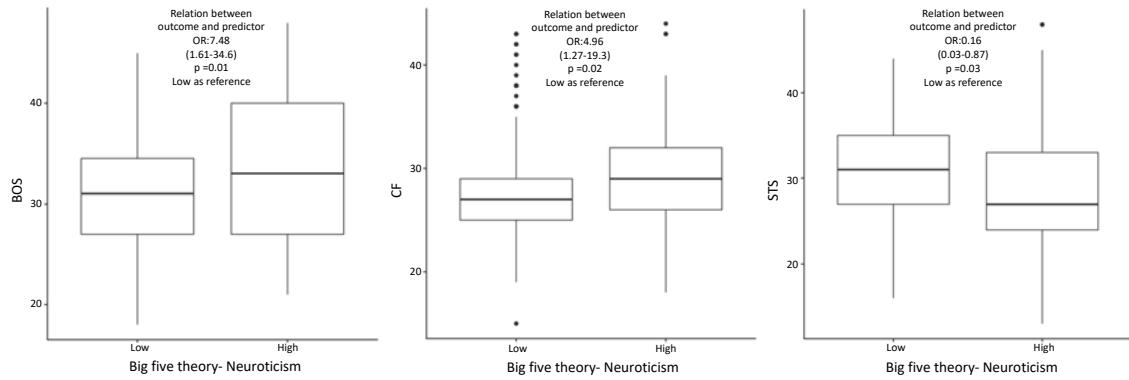
Conscientiousness for STS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Conscientiousness for CS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Big five theory -Neuroticism for BOS, STS, CS



Neuroticism for BOS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

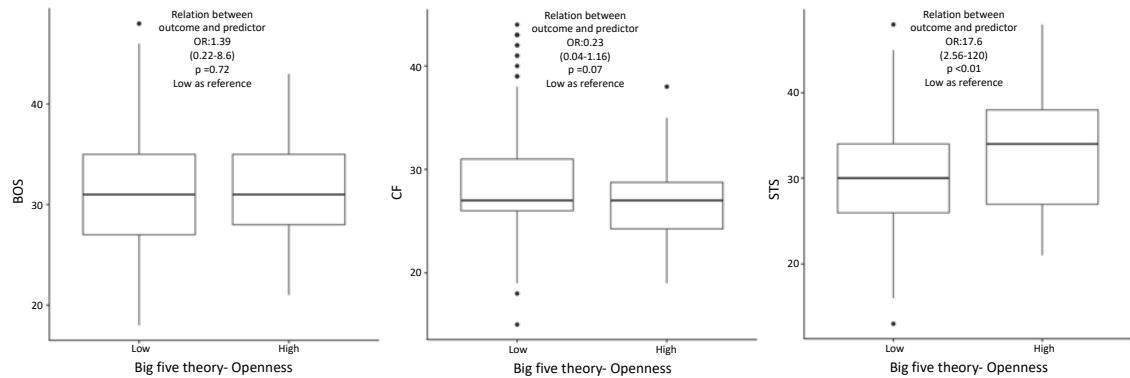
Neuroticism for STS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Neuroticism for CS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Big five theory - Openness for BOS, STS, CS



Openness for BOS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

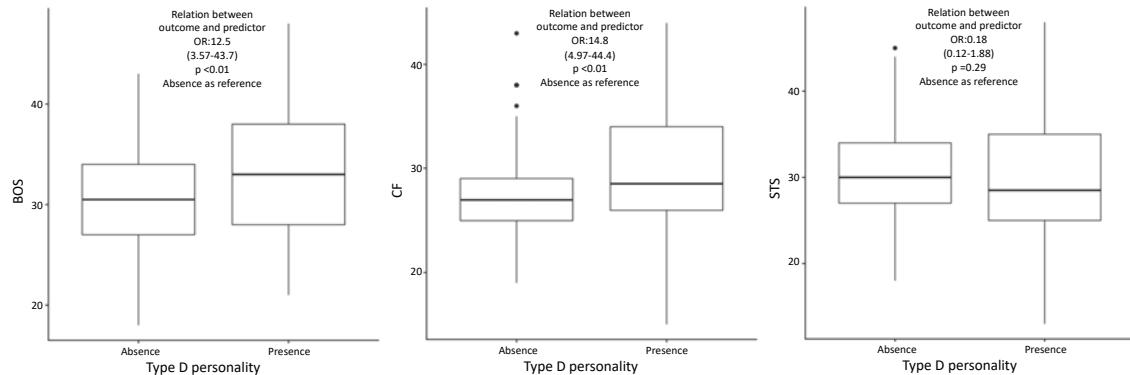
Openness for STS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Openness for CS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Type-D personality for BOS, STS, CS



Type-D personality for BOS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

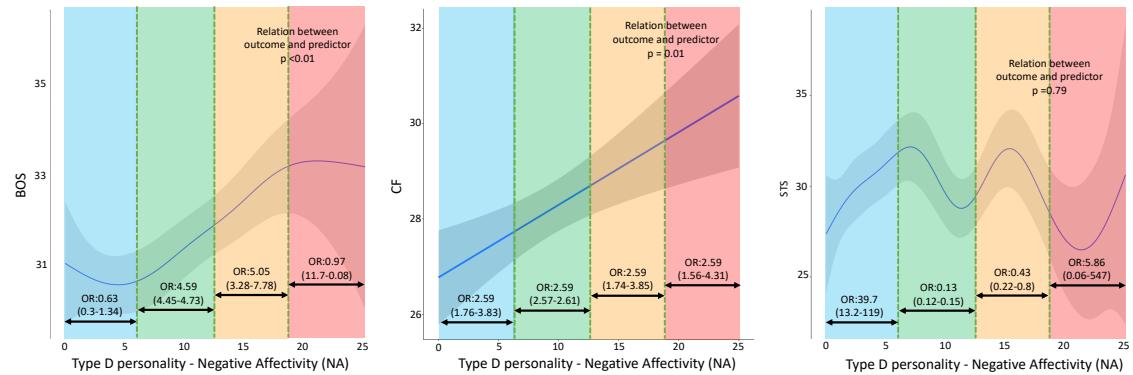
Type-D personality for STS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Type-D personality for CS

reference	factor	Odds ratio	95%CI	p-value
Low	High			

Type-D personality- Negative Affectivity (NA) for BOS, STS, CS



Negative Affectivity for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.63	(0.38-4.85)
25 th -50 th		4.59	(2.14-2.49)
50 th -75 th		5.05	(3.15-13)
75 th -100 th		0.97	(1.66-66.5)

GAM modeling showed positive association and p-value was p>0.01

Negative Affectivity for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

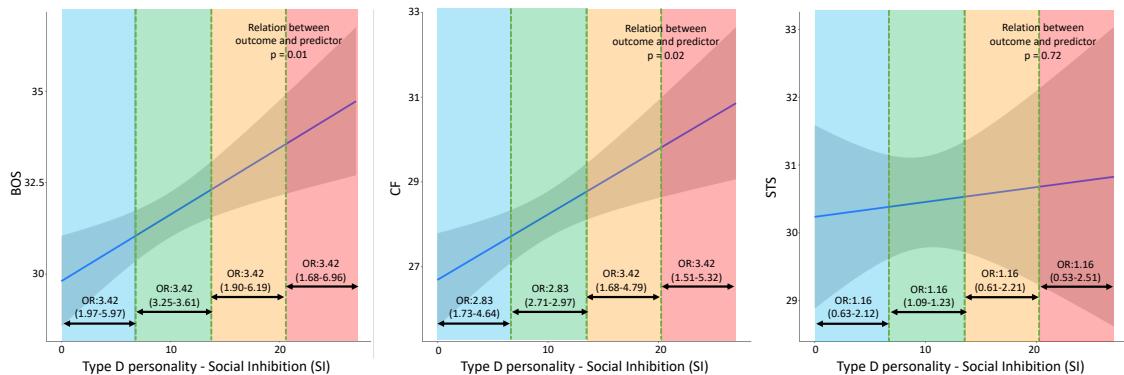
GAM modeling showed positive association and p-value was p=0.01

Negative Affectivity for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		39.7	(13.2-119)
25 th -50 th		0.13	(0.12-0.15)
50 th -75 th		0.43	(0.22-0.8)
75 th -100 th		5.86	(0.06-547)

GAM modeling showed positive association and p-value was p=0.79

Type-D personality-Social Inhibition (SI) for BOS, STS, CS



Social Inhibition for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

GAM modeling showed positive association and p-value was $p=$

Social Inhibition for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

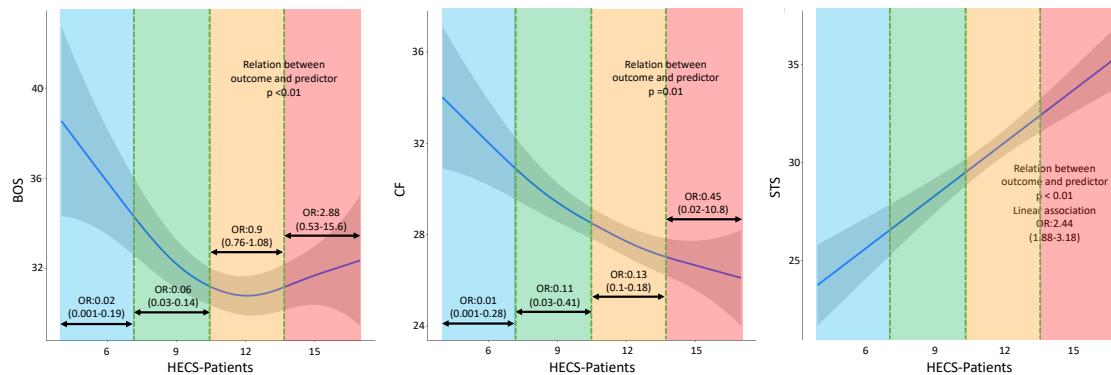
GAM modeling showed positive association and p-value was $p=$

Social Inhibition for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

GAM modeling showed positive association and p-value was $p=$

HECS-Total for BOS, STS, CS



HECS-Total for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.005	(0.001-0.01)
25 th -50 th		0.02	(0.01-0.02)
50 th -75 th		3.92	(1.59-9.63)
75 th -100 th		0.84	(0.03-20.5)

GAM modeling showed positive association and p-value was $p=0.01$

HECS-Total for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.01	(0.001-0.05)
25 th -50 th		0.02	(0.01-0.03)
50 th -75 th		0.16	(0.08-0.32)
75 th -100 th		0.36	(0.04-3.06)

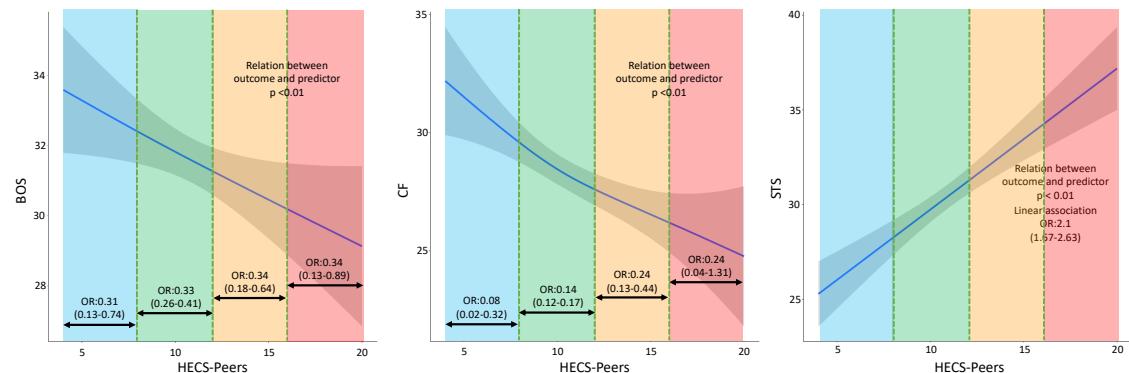
GAM modeling showed positive association and p-value was $p<0.01$

HECS-Total for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

GAM modeling showed positive association and p-value was $p<0.01$

HECS-Peers for BOS, STS, CS



HECS-Peers for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.31	(0.13-0.74)
25 th -50 th		0.33	(0.26-0.41)
50 th -75 th		0.34	(0.18-0.64)
75 th -100 th		0.34	(0.13-0.89)

GAM modeling showed positive association and p-value was $p<0.01$

HECS-Peers for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.08	(0.02-0.32)
25 th -50 th		0.14	(0.12-0.17)
50 th -75 th		0.24	(0.13-0.44)
75 th -100 th		0.24	(0.04-1.31)

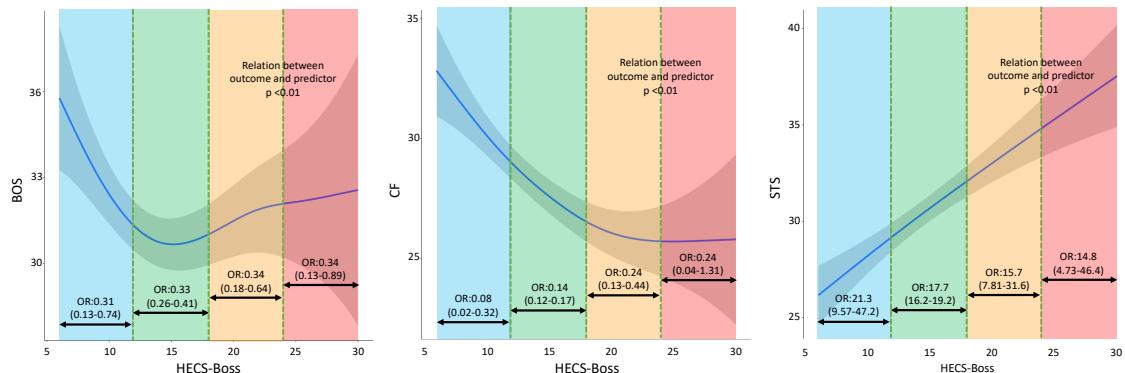
GAM modeling showed positive association and p-value was $p<0.01$

HECS-Peers for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

GAM modeling showed positive association and p-value was $p=$

HECS- Patients for BOS, STS, CS



HECS- Patients for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.02	(0.001-0.19)
25 th -50 th		0.06	(0.03-0.14)
50 th -75 th		0.9	(0.76-1.08)
75 th -100 th		2.88	(0.53-15.6)

GAM modeling showed positive association and p-value was p<0.01

HECS- Patients for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.01	(0.001-0.28)
25 th -50 th		0.11	(0.03-0.41)
50 th -75 th		0.13	(0.1-0.18)
75 th -100 th		0.45	(0.02-10.8)

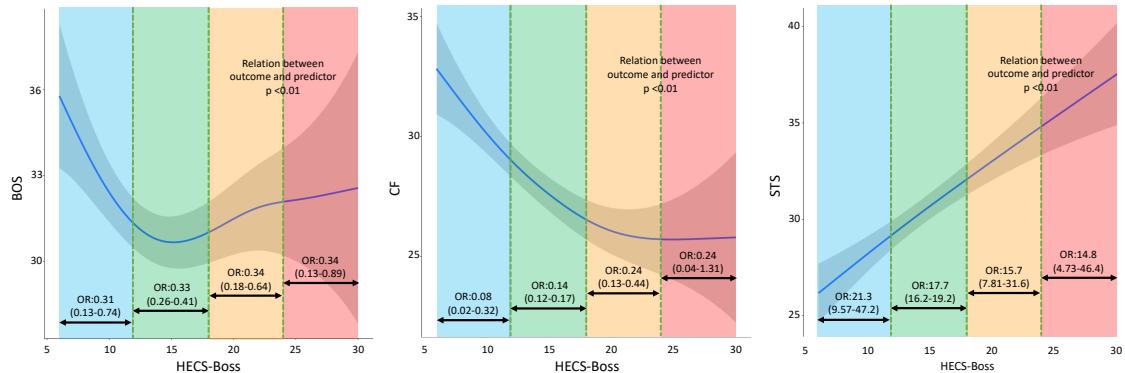
GAM modeling showed positive association and p-value was p<0.01

HECS- Patients for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

GAM modeling showed positive association and p-value was p=

HECS- Boss for BOS, STS, CS



HECS- Boss for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.31	(0.13-0.74)
25 th -50 th		0.33	(0.26-0.41)
50 th -75 th		0.34	(0.18-0.64)
75 th -100 th		0.34	(0.13-0.89)

GAM modeling showed positive association and p-value was p<0.01

HECS- Boss for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.08	(0.02-0.32)
25 th -50 th		0.14	(0.12-0.17)
50 th -75 th		0.24	(0.13-0.44)
75 th -100 th		0.24	(0.04-1.31)

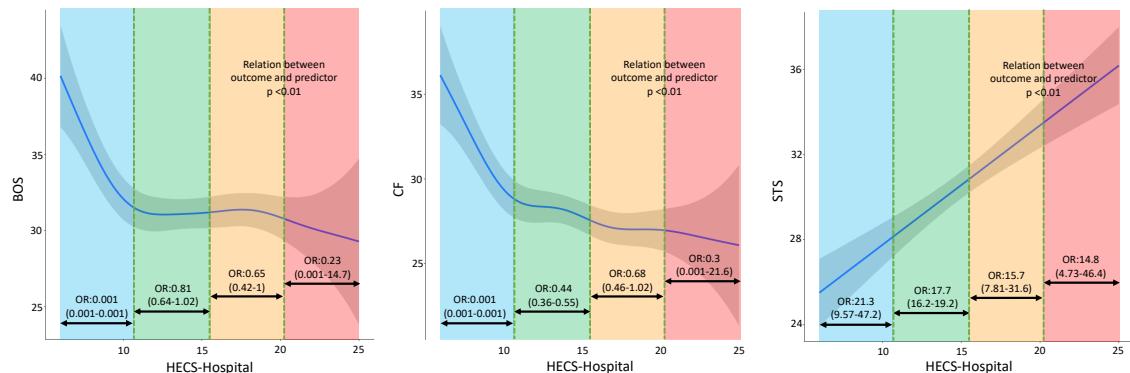
GAM modeling showed positive association and p-value was p<0.01

HECS- Boss for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		21.3	(9.57-47.2)
25 th -50 th		17.7	(16.2-19.2)
50 th -75 th		15.7	(7.81-31.6)
75 th -100 th		14.8	(4.73-46.4)

GAM modeling showed positive association and p-value was p<0.01

HECS- Hospital for BOS, STS, CS



HECS- Hospital for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.001	(0.001-0.001)
25 th -50 th		0.81	(0.64-1.02)
50 th -75 th		0.65	(0.42-1)
75 th -100 th		0.23	(0.001-14.7)

GAM modeling showed positive association and p-value was $p < 0.01$

HECS- Hospital for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.001	(0.001-0.001)
25 th -50 th		0.44	(0.36-0.55)
50 th -75 th		0.68	(0.46-1.02)
75 th -100 th		0.3	(0.001-21.6)

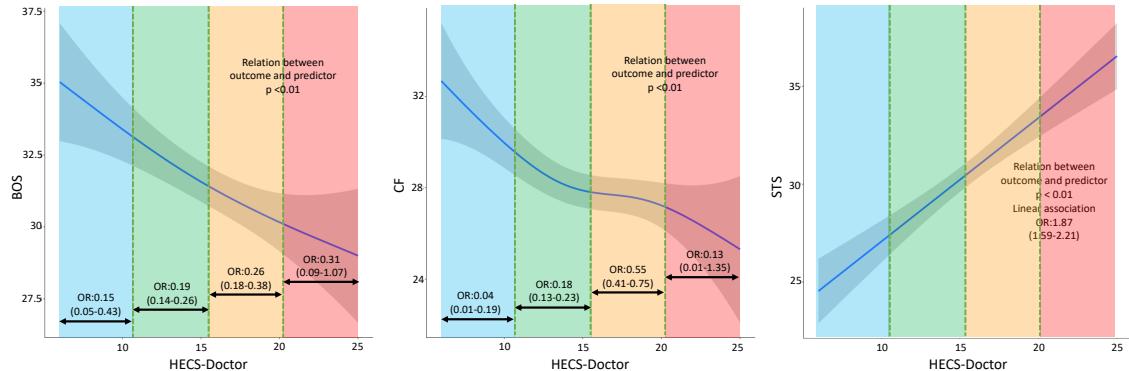
GAM modeling showed positive association and p-value was $p < 0.01$

HECS- Hospital for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

GAM modeling showed positive association and p-value was $p < 0.01$

HECS- Doctor for BOS, STS, CS



HECS- Doctor for BOS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.15	(0.05-0.43)
25 th -50 th		0.19	(0.14-0.26)
50 th -75 th		0.26	(0.18-0.38)
75 th -100 th		0.31	(0.09-1.07)

GAM modeling showed positive association and p-value was $p < 0.01$

HECS- Doctor for STS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th		0.04	(0.01-0.19)
25 th -50 th		0.18	(0.13-0.23)
50 th -75 th		0.55	(0.41-0.75)
75 th -100 th		0.13	(0.01-1.35)

GAM modeling showed positive association and p-value was $p < 0.01$

HECS- Doctor for CS

Quartile	Range of factor	Odds ratio	95% CI
0 th -25 th			
25 th -50 th			
50 th -75 th			
75 th -100 th			

GAM modeling showed positive association and p-value was $p < 0.01$