

Supplemental Digital Content 1: differences in the frequency of experienced strain between professional groups, for each category of strain (dependent variable)

1) Differences in experienced task complexity across the different professional groups

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	19.78 ^a	5	3.96	10.06	0.000
Intercept	68.59	1	68.59	174.53	0.000
prof_group	19.78	5	3.96	10.06	0.000
Error	255.44	650	0.39		
Total	347.00	656			
Corrected Total	275.22	655			

a. R Squared = .072 (Adjusted R Squared = .065)

Multiple Comparisons

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
surgeon	resident	0.07	0.08	1.000	-0.18	0.32
	student	0.25	0.11	0.320	-0.07	0.56
	scrub tech	0.50	0.08	0.000	0.26	0.74
	circulator	0.35	0.08	0.000	0.11	0.58
resident	anesthetist	0.26	0.08	0.027	0.02	0.51
	surgeon	-0.07	0.08	1.000	-0.32	0.18
	student	0.18	0.11	1.000	-0.14	0.49
	scrub tech	0.43	0.08	0.000	0.19	0.67
student	circulator	0.28	0.08	0.008	0.04	0.51
	anesthetist	0.19	0.08	0.292	-0.05	0.43
	surgeon	-0.25	0.11	0.320	-0.56	0.07
	resident	-0.18	0.11	1.000	-0.49	0.14
scrub tech	scrub tech	0.26	0.10	0.213	-0.05	0.56
	circulator	0.10	0.10	1.000	-0.20	0.40
	anesthetist	0.02	0.11	1.000	-0.29	0.33
	surgeon	-0.50	0.08	0.000	-0.74	-0.26
surgeon	resident	-0.43	0.08	0.000	-0.67	-0.19
	student	-0.26	0.10	0.213	-0.56	0.05

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
	circulator	-0.16	0.08	0.661	-0.38	0.07
circulator	anesthetist	-0.24	0.08	0.046	-0.47	0.00
	surgeon	-0.35	0.08	0.000	-0.58	-0.11
	resident	-0.28	0.08	0.008	-0.51	-0.04
	student	-0.10	0.10	1.000	-0.40	0.20
	scrub tech	0.16	0.08	0.661	-0.07	0.38
anesthetist	anesthetist	-0.08	0.08	1.000	-0.32	0.15
	surgeon	-0.26	0.08	0.027	-0.51	-0.02
	resident	-0.19	0.08	0.292	-0.43	0.05
	student	-0.02	0.11	1.000	-0.33	0.29
	scrub tech	0.24	0.08	0.046	0.00	0.47
	circulator	0.08	0.08	1.000	-0.15	0.32

Based on observed means.

The error term is Mean Square(Error) = .393.

2) Differences in experienced patient issues across the different professional groups

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2.30 ^a	5	0.46	4.05	0.001
Intercept	5.27	1	5.27	46.35	0.000
prof_group	2.30	5	0.46	4.05	0.001
Error	73.84	650	0.11		
Total	82.00	656			
Corrected Total	76.14	655			

a. R Squared = .030 (Adjusted R Squared = .023)

Multiple Comparisons

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
surgeon	resident	0.00	0.05	1.000	-0.13	0.14
	student	0.08	0.06	1.000	-0.09	0.25
	scrub tech	0.12	0.04	0.126	-0.01	0.25
	circulator	0.10	0.04	0.261	-0.02	0.23
	anesthetist	-0.03	0.05	1.000	-0.16	0.10
resident	surgeon	0.00	0.05	1.000	-0.14	0.13
	student	0.08	0.06	1.000	-0.09	0.25
	scrub tech	0.11	0.04	0.124	-0.01	0.24
	circulator	0.10	0.04	0.260	-0.02	0.23
	anesthetist	-0.03	0.04	1.000	-0.16	0.10
student	surgeon	-0.08	0.06	1.000	-0.25	0.09
	resident	-0.08	0.06	1.000	-0.25	0.09
	scrub tech	0.04	0.06	1.000	-0.13	0.20
	circulator	0.02	0.06	1.000	-0.14	0.19
	anesthetist	-0.11	0.06	0.718	-0.28	0.05
scrub tech	surgeon	-0.12	0.04	0.126	-0.25	0.01
	resident	-0.11	0.04	0.124	-0.24	0.01
	student	-0.04	0.06	1.000	-0.20	0.13
	circulator	-0.01	0.04	1.000	-0.14	0.11
	anesthetist	-0.15	0.04	0.010	-0.27	-0.02
circulator	surgeon	-0.10	0.04	0.261	-0.23	0.02
	resident	-0.10	0.04	0.260	-0.23	0.02
	student	-0.02	0.06	1.000	-0.19	0.14

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
anesthetist	scrub tech	0.01	0.04	1.000	-0.11	0.14
	anesthetist	-0.13	0.04	0.024	-0.26	-0.01
	surgeon	0.03	0.05	1.000	-0.10	0.16
	resident	0.03	0.04	1.000	-0.10	0.16
	student	0.11	0.06	0.718	-0.05	0.28
circulator	scrub tech	0.15	0.04	0.010	0.02	0.27
	circulator	0.13	0.04	0.024	0.01	0.26

Based on observed means.

The error term is Mean Square(Error) = .114.

3) Differences in experienced issues with material and resources across the different professional groups

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	0.96 ^a	5	0.19	1.83	0.104
Intercept	4.30	1	4.30	41.19	0.000
prof_group	0.96	5	0.19	1.83	0.104
Error	67.91	650	0.10		
Total	74.00	656			
Corrected Total	68.87	655			

a. R Squared = .014 (Adjusted R Squared = .006)

Multiple Comparisons

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
surgeon	resident	0.10	0.04	0.365	-0.03	0.23
	student	0.09	0.06	1.000	-0.07	0.25
	scrub tech	0.06	0.04	1.000	-0.07	0.18
	circulator	0.03	0.04	1.000	-0.09	0.16
	anesthetist	0.11	0.04	0.206	-0.02	0.23
resident	surgeon	-0.10	0.04	0.365	-0.23	0.03
	student	-0.01	0.05	1.000	-0.17	0.15
	scrub tech	-0.04	0.04	1.000	-0.16	0.08
	circulator	-0.07	0.04	1.000	-0.19	0.06
	anesthetist	0.01	0.04	1.000	-0.12	0.13
student	surgeon	-0.09	0.06	1.000	-0.25	0.07
	resident	0.01	0.05	1.000	-0.15	0.17
	scrub tech	-0.03	0.05	1.000	-0.19	0.12
	circulator	-0.06	0.05	1.000	-0.21	0.10
	anesthetist	0.02	0.05	1.000	-0.14	0.18
scrub tech	surgeon	-0.06	0.04	1.000	-0.18	0.07
	resident	0.04	0.04	1.000	-0.08	0.16
	student	0.03	0.05	1.000	-0.12	0.19
	circulator	-0.02	0.04	1.000	-0.14	0.09
	anesthetist	0.05	0.04	1.000	-0.07	0.17
circulator	surgeon	-0.03	0.04	1.000	-0.16	0.09
	resident	0.07	0.04	1.000	-0.06	0.19
	student	0.06	0.05	1.000	-0.10	0.21
	scrub tech	0.02	0.04	1.000	-0.09	0.14

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
	anesthetist	0.07	0.04	1.000	-0.05	0.19
anesthetist	surgeon	-0.11	0.04	0.206	-0.23	0.02
	resident	-0.01	0.04	1.000	-0.13	0.12
	student	-0.02	0.05	1.000	-0.18	0.14
	scrub tech	-0.05	0.04	1.000	-0.17	0.07
	circulator	-0.07	0.04	1.000	-0.19	0.05

Based on observed means.

The error term is Mean Square(Error) = .104.

4) Differences in reporting others' behaviors across the different professional groups

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	0.67a	5	0.13	1.32	0.255
Intercept	4.29	1	4.29	41.91	0.000
prof_group	0.67	5	0.13	1.32	0.255
Error	66.55	650	0.10		
Total	72.00	656			
Corrected Total	67.22	655			

a. R Squared = .010 (Adjusted R Squared = .002)

Multiple Comparisons

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
surgeon	resident	0.06	0.04	1.000	-0.07	0.19
	student	0.00	0.05	1.000	-0.16	0.17
	scrub tech	0.02	0.04	1.000	-0.11	0.14
	circulator	-0.03	0.04	1.000	-0.15	0.09
	anesthetist	0.05	0.04	1.000	-0.07	0.18
resident	surgeon	-0.06	0.04	1.000	-0.19	0.07
	student	-0.05	0.05	1.000	-0.21	0.10
	scrub tech	-0.04	0.04	1.000	-0.16	0.08
	circulator	-0.09	0.04	0.437	-0.21	0.03
	anesthetist	-0.01	0.04	1.000	-0.13	0.12
student	surgeon	0.00	0.05	1.000	-0.17	0.16
	resident	0.05	0.05	1.000	-0.10	0.21
	scrub tech	0.01	0.05	1.000	-0.14	0.17
	circulator	-0.03	0.05	1.000	-0.19	0.12
	anesthetist	0.05	0.05	1.000	-0.11	0.20
scrub tech	surgeon	-0.02	0.04	1.000	-0.14	0.11
	resident	0.04	0.04	1.000	-0.08	0.16
	student	-0.01	0.05	1.000	-0.17	0.14
	circulator	-0.05	0.04	1.000	-0.16	0.07
	anesthetist	0.03	0.04	1.000	-0.09	0.16
circulator	surgeon	0.03	0.04	1.000	-0.09	0.15
	resident	0.09	0.04	0.437	-0.03	0.21
	student	0.03	0.05	1.000	-0.12	0.19
	scrub tech	0.05	0.04	1.000	-0.07	0.16

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
anesthetist	surgeon	-0.05	0.04	1.000	-0.18	0.07
	resident	0.01	0.04	1.000	-0.12	0.13
	student	-0.05	0.05	1.000	-0.20	0.11
	scrub tech	-0.03	0.04	1.000	-0.16	0.09
	circulator	-0.08	0.04	0.707	-0.20	0.04

Based on observed means.

The error term is Mean Square(Error) = .102.

5) Differences in experienced issues with knowledge, skills or own performance across the different professional groups.

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.89 ^a	5	0.38	3.11	0.009
Intercept	7.15	1	7.15	58.80	0.000
prof_group	1.89	5	0.38	3.11	0.009
Error	79.06	650	0.12		
Total	87.00	656			
Corrected Total	80.95	655			

a. R Squared = .023 (Adjusted R Squared = .016)

Multiple Comparisons

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
surgeon	resident	0.03	0.05	1.000	-0.11	0.17
	student	-0.08	0.06	1.000	-0.25	0.10
	scrub tech	0.05	0.05	1.000	-0.09	0.18
	circulator	0.13	0.04	0.081	-0.01	0.26
	anesthetist	0.05	0.05	1.000	-0.08	0.19
resident	surgeon	-0.03	0.05	1.000	-0.17	0.11
	student	-0.10	0.06	1.000	-0.28	0.07
	scrub tech	0.02	0.04	1.000	-0.11	0.15
	circulator	0.10	0.04	0.407	-0.03	0.23
	anesthetist	0.03	0.05	1.000	-0.11	0.16
student	surgeon	0.08	0.06	1.000	-0.10	0.25
	resident	0.10	0.06	1.000	-0.07	0.28
	scrub tech	0.12	0.06	0.527	-0.05	0.29
	circulator	0.20	0.06	0.007	0.03	0.37
	anesthetist	0.13	0.06	0.396	-0.04	0.30
scrub tech	surgeon	-0.05	0.05	1.000	-0.18	0.09
	resident	-0.02	0.04	1.000	-0.15	0.11
	student	-0.12	0.06	0.527	-0.29	0.05
	circulator	0.08	0.04	0.980	-0.05	0.21
	anesthetist	0.01	0.04	1.000	-0.12	0.14
circulator	surgeon	-0.13	0.04	0.081	-0.26	0.01
	resident	-0.10	0.04	0.407	-0.23	0.03
	student	-0.20	0.06	0.007	-0.37	-0.03

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
anesthetist	anesthetist	-0.07	0.04	1.000	-0.20	0.06
	surgeon	-0.05	0.05	1.000	-0.19	0.08
	resident	-0.03	0.05	1.000	-0.16	0.11
	student	-0.13	0.06	0.396	-0.30	0.04
	scrub tech	-0.01	0.04	1.000	-0.14	0.12
	circulator	0.07	0.04	1.000	-0.06	0.20

Based on observed means.

The error term is Mean Square(Error) = .122.

6) Differences in observation of others' strain across the different professional groups.

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	0.42 ^a	5	0.08	3.57	0.003
Intercept	0.47	1	0.47	20.10	0.000
prof_group	0.42	5	0.08	3.57	0.003
Error	15.28	650	0.02		
Total	16.00	656			
Corrected Total	15.70	655			

a. R Squared = .027 (Adjusted R Squared = .019)

Multiple Comparisons

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
surgeon	resident	-0.02	0.02	1.000	-0.08	0.04
	student	-0.10	0.03	0.003	-0.17	-0.02
	scrub tech	0.00	0.02	1.000	-0.06	0.06
	circulator	-0.03	0.02	1.000	-0.09	0.03
	anesthetist	-0.03	0.02	1.000	-0.09	0.03
resident	surgeon	0.02	0.02	1.000	-0.04	0.08
	student	-0.08	0.03	0.027	-0.16	0.00
	scrub tech	0.02	0.02	1.000	-0.04	0.08
	circulator	-0.01	0.02	1.000	-0.07	0.05
	anesthetist	-0.01	0.02	1.000	-0.07	0.05
student	surgeon	0.10	0.03	0.003	0.02	0.17
	resident	0.08	0.03	0.027	0.00	0.16
	scrub tech	0.10	0.03	0.002	0.02	0.17
	circulator	0.07	0.03	0.096	-0.01	0.14
	anesthetist	0.07	0.03	0.076	0.00	0.15
scrub tech	surgeon	0.00	0.02	1.000	-0.06	0.06
	resident	-0.02	0.02	1.000	-0.08	0.04
	student	-0.10	0.03	0.002	-0.17	-0.02
	circulator	-0.03	0.02	1.000	-0.08	0.03
	anesthetist	-0.03	0.02	1.000	-0.08	0.03
circulator	surgeon	0.03	0.02	1.000	-0.03	0.09
	resident	0.01	0.02	1.000	-0.05	0.07
	student	-0.07	0.03	0.096	-0.14	0.01
	scrub tech	0.03	0.02	1.000	-0.03	0.08

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
anesthetist	surgeon	0.03	0.02	1.000	-0.03	0.09
	resident	0.01	0.02	1.000	-0.05	0.07
	student	-0.07	0.03	0.076	-0.15	0.00
	scrub tech	0.03	0.02	1.000	-0.03	0.08
	circulator	0.00	0.02	1.000	-0.06	0.05

Based on observed means.

The error term is Mean Square(Error) = .024.