

## Supplemental Material

**TABLE 1**

Reliability of STEEM Using Cronbach's Alpha (Former Table 1)

<b>Cronbach's Alpha</b>			
	<b>Al-Ain (n = 15)</b>	<b>Corniche (n = 16)</b>	<b>Overall (n = 31)</b>
<b>STEEM (Whole)</b>	0.655	0.795	0.844
<b>Domains</b>			
<b>Trainer and training</b>	0.569	0.782	0.826
<b>Learning opportunities</b>	0.632	0.120	0.499
<b>Atmosphere in the operating theatre</b>	0.231	0.626	0.730
<b>Perceptions of supervision, workload, and support</b>	0.481	0.625	0.542

**TABLE 2**

Factor Analysis Component

Component	Total Variance Explained								
	Al-Ain (n = 15)			Corniche (n = 16)			Overall (n = 31)		
	Eigen Values	% of Variance	Cumulative %	Eigen Values	% of Variance	Cumulative %	Eigen Values	% of Variance	Cumulative %
<b>1</b>	9.37	23.42	23.42	8.94	22.34	22.34	9.84	24.60	24.60
<b>2</b>	7.01	17.52	40.94	5.16	12.89	35.23	3.77	9.43	34.03
<b>3</b>	5.54	13.86	54.79	4.13	10.33	45.57	3.32	8.29	42.32
<b>4</b>	4.09	10.23	65.03	3.54	8.85	54.42	2.63	6.58	48.89
<b>5</b>	3.12	7.81	72.83	3.36	8.39	62.81	2.52	6.30	55.19
<b>6</b>	2.82	7.05	79.88	2.85	7.13	69.94	2.16	5.40	60.59
<b>7</b>	2.16	5.39	85.28	2.31	5.78	75.72	2.00	5.00	65.59
<b>8</b>	1.94	4.86	90.14	2.12	5.29	81.01	1.65	4.12	69.71
<b>9</b>	1.60	4.00	94.14	1.59	3.98	84.99	1.61	4.02	73.73
<b>10</b>				1.45	3.62	88.61	1.46	3.65	77.37
<b>11</b>				1.12	2.80	91.41	1.28	3.19	80.57
<b>12</b>				1.10	2.76	94.16	1.07	2.66	83.23

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**TABLE 3**

Descriptive Statistics of Each Item

Questions	Mean	Median	SD	Minimum	Maximum	Percentiles	
						25	75
1. My trainer has a pleasant personality	4.0	4.0	0.6	3.0	5.0	4.0	4.0
2. I get on well with my trainer	4.0	4.0	0.6	2.0	5.0	4.0	4.0
3. My trainer is enthusiastic about teaching	3.6	4.0	0.8	2.0	5.0	3.0	4.0
4. My trainer has a genuine interest in my progress	3.4	4.0	1.0	2.0	5.0	3.0	4.0
5. I understand what my trainer is trying to teach me	3.9	4.0	0.7	2.0	5.0	4.0	4.0
6. My trainer's surgical skills are very good	4.0	4.0	0.8	2.0	5.0	4.0	4.0
7. My trainer gives me time to practice surgical skills in theatre	3.7	.0	0.8	2.0	5.0	3.0	4.0
8. My trainer immediately takes the instruments away when I do not perform well	2.6	2.0	1.1	1.0	5.0	2.0	4.0
9. Before the operation my trainer discusses the surgical technique used	3.5	4.0	1.0	1.0	5.0	3.0	4.0
10. Before the operation my trainer discusses what part of the procedure I will perform	3.8	4.0	0.9	2.0	5.0	4.0	4.0
11. My trainer expects my surgical skills to be as good as theirs	2.8	3.0	0.9	1.0	4.0	2.0	4.0
12. My trainer gives me feedback on my performance	4.0	4.0	0.6	2.0	5.0	4.0	4.0
13. My trainer's criticism is constructive	3.4	4.0	0.9	1.0	5.0	3.0	4.0
<b>SUM</b>	<b>46.7</b>	<b>48.0</b>	<b>6.3</b>	<b>32.0</b>	<b>59.0</b>	<b>41.0</b>	<b>52.0</b>
14. On this unit the type of operations performed are too complex for my level	3.2	3.0	1.0	1.0	5.0	2.0	4.0
15. The elective operating list has the right case mix to suit my training	3.5	4.0	1.0	1.0	5.0	3.0	4.0
16. There are far too many cases on the elective list to give me the opportunity to operate	3.0	3.0	1.1	1.0	5.0	2.0	4.0
17. I get enough opportunity to assist	4.3	4.0	0.5	4.0	5.0	4.0	5.0
18. There are enough theatre sessions per week for me to gain the appropriate experience	3.1	3.0	1.1	1.0	5.0	2.0	4.0
19. More senior trainees take my opportunities to operate	2.7	2.0	1.0	1.0	4.0	2.0	4.0
20. The number of emergency procedures is sufficient for me to gain the right operative experience	2.8	3.0	1.1	1.0	4.0	2.0	4.0
21. The variety of emergency cases gives me the appropriate exposure	3.6	4.0	0.8	1.0	5.0	3.0	4.0

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22. My trainer is in too much of a rush during emergency cases to let me operate	2.0	2.0	0.9	1.0	4.0	1.0	2.0
23. I miss out on operative experience because of restrictions on working hours	3.0	4.0	1.0	1.0	5.0	3.0	4.0
24. I have the opportunity to develop the skills required at my stage	3.2	4.0	1.0	1.0	5.0	2.0	4.0
<b>SUM</b>	<b>35.1</b>	<b>34.0</b>	<b>4.3</b>	<b>28.0</b>	<b>44.0</b>	<b>32.0</b>	<b>39.0</b>
25. The atmosphere in theatre is pleasant	3.9	4.0	0.9	1.0	5.0	4.0	4.0
26. In theatre I don't like being corrected in front of other students, nurses, and residents	3.5	4.0	1.1	1.0	5.0	2.0	4.0
27. The nursing staff dislike it when I operate as the operation takes longer	3.1	3.0	1.2	1.0	5.0	2.0	4.0
28. The anesthetists put pressure on my trainer to operate himself to reduce unaesthetic time	2.9	3.0	1.3	1.0	5.0	2.0	4.0
29. The theatre staff are friendly	4.1	4.0	0.8	2.0	5.0	4.0	5.0
30. I feel discriminated against in theatre because of my sex	4.2	4.0	0.8	1.0	5.0	4.0	5.0
31. I feel discriminated against in theatre because of my ethnicity	4.1	4.0	0.7	2.0	5.0	4.0	5.0
32. I feel part of a team in theatre	4.0	4.0	0.7	2.0	5.0	4.0	4.0
<b>SUM</b>	<b>29.7</b>	<b>30.0</b>	<b>4.5</b>	<b>18.0</b>	<b>37.0</b>	<b>27.0</b>	<b>34.0</b>
33. I am too busy doing other work to go to theatre	3.4	4.0	0.9	1.0	5.0	3.0	4.0
34. I am often too tired to get the most out of theatre teaching	3.8	4.0	0.9	2.0	5.0	3.0	4.0
35. I am so stressed in theatre that I do not learn as much as I could	4.0	4.0	0.6	2.0	5.0	4.0	4.0
36. I am asked to perform operations alone that I do not feel competent at	4.1	4.0	0.8	1.0	5.0	4.0	5.0
37. When I am in theatre, there is nobody to cover the ward	3.9	4.0	1.0	1.0	5.0	4.0	5.0
38. I get called for other work during operations	3.6	4.0	1.0	1.0	5.0	3.0	4.0
39. The level of supervision in theatre is adequate for my level	4.0	4.0	0.7	2.0	5.0	4.0	4.0
40. Theatre sessions are too long	3.7	4.0	1.0	1.0	5.0	3.0	4.0
<b>SUM</b>	<b>30.6</b>	<b>31.0</b>	<b>3.4</b>	<b>24.0</b>	<b>38.0</b>	<b>28.0</b>	<b>33.0</b>

Note: The highest, lowest, and totals of subsections have been highlighted.

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**TABLE 4**

Comparison of Overall STEEM and of Each Domain Between the 2 Hospitals (Parametric Test for Testing of Mean Value)

Domain	Al-Ain (n = 13) (Mean ± SD)	Corniche (n = 18) (Mean ± SD)	Difference (Mean ± SD)	95% CI of the Difference		t-value	P Value
				Lower	Upper		
Trainer and training	51.2 ± 4.0	43.4 ± 5.6	7.8 ± 1.8	7.1	11.5	4.297	< .0001*
Learning opportunities	37.0 ± 4.9	33.7 ± 3.4	3.3 ± 1.5	0.3	6.4	2.246	.032*
Atmosphere in the operating theatre	33.2 ± 2.3	27.2 ± 4.0	6.0 ± 1.2	3.5	8.5	4.825	< .0001*
Perceptions of supervision, workload, and support	30.7 ± 3.7	30.5 ± 3.3	0.2 ± 1.3	-2.5	2.7	0.107	.915
Total Score	152.1 ± 9.1	134.9 ± 11.8	17.2 ± 3.9	9.2	25.3	4.406	< .0001*

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**TABLE 5**

Comparison of our study with that of Casser<sup>12</sup> and Al-Qahtani<sup>16</sup>

<b>Domain</b>	<b>Overall</b>	<b>Corniche</b>	<b>Al-Ain</b>	<b>Casser</b>	<b>Al-Qahtani</b>
Trainer and training	71.8%	66.76%	78.7%	78.9%	52%
Learning opportunities	63.8%	61.2%	67.2%	67.5%	57%
Atmosphere in the operating theatre	74.25%	68%	83%	76%	55%
Perceptions of supervision, workload, and support	76.5%	76.5%	76.75%	75%	57%

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### Supplemental Material

#### Certification of Consent

*Please tick the appropriate boxes*

##### Taking Part

Yes

I have read and understood the project information sheet.

I have been given the opportunity to ask questions about the project.

I agree to take part in the project.

I understand that my taking part is voluntary; I can withdraw from the study at any time and I do not have to give any reasons for why I no longer want to take part.

I understand that my words may be quoted in publications, reports, web pages, and other research outputs however they will be anonymous.

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Name of participant [printed]

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Signature

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Date

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