

21 Gender Bias in Nursing Assessment of Emergency Medicine Residents

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Background: Implicit gender bias in medical training has been suspected both on the part of physicians and of nurses interacting with trainees. Previous investigations have demonstrated gender bias in nursing assessments of OB/GYN residents and faculty evaluations of Emergency Medicine residents.

Objectives: We aimed to determine if gender bias exists in nursing assessments of Emergency Medicine residents.

Methods: We used a single-center, retrospective design to examine nursing assessments of PGY-1 to PGY-4 Emergency Medicine residents in an urban Level I Trauma center's academic training program. Surveys were sent to nursing staff, who submitted anonymous evaluations of residents using a 5-question assessment tool. Responses were graded using a five point scale for questions 1-4. Question 5 was a binary yes/no question. The survey asked about a resident's bedside manner, communication skills with patients, communication skills with nurses and other non-physician staff, medical knowledge and clinical skills, and whether the nurse evaluator would want this resident to take care of them or their family member as an ED patient. Analysis was conducted using linear mixed models.

Results: A total of 325 assessments were collected over a one year period. There were 140 evaluations for female residents (43%) and 185 for male residents (57%). 61 unique residents were included in the analysis. For Question 1, which assessed a resident's bedside manner, there existed a statistically significant difference in scores by gender ($p = 0.035$) when comparing male (mean score 4.1) vs female (mean score 3.62) residents. The four other questions demonstrated a trend toward female residents scoring lower than male residents, but none reached statistical significance.

Conclusions: While our study looked at a small sample of resident assessments over a one year period, we found a statistically significant gender difference evident in 1/5 questions. Faculty and residents should be aware of possible gender bias when interpreting results of nursing assessments.

22 Interprofessional Simulation Improves Comfort With Communication Among Emergency Department Personnel

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Background: Patient care in the ED involves communication between personnel from multiple health care

professions. Training in multidisciplinary teams has engaged both Interprofessional Education (IPE) and simulation, with the majority of literature focused on learners in medicine, nursing, and/or pharmacy. Few studies have included respiratory therapy or paramedicine, two key professions in the ED environment.

Objectives: The purpose of this study was to evaluate the impact of IPE simulation on communication comfort between personnel from different professions.

Methods: Voluntary participants consisting of EM residents, nurses, pharmacy residents, respiratory therapy (RT) students, and paramedics were divided equally into interprofessional teams. Each team rotated through high-fidelity simulations with three different ED scenarios (trauma, medical, and error disclosure). Participants completed an anonymous pre- and post-simulation survey consisting of both Likert scale and free text questions which included a self-assessment of their communication ability and contribution to the team, as well as questions pertaining toward interactions with the other members of the health care team.

Table 1. Comparison of learners' pre- and post-simulation responses.

Item	N	Pre Mean	Pre SD	Post Mean	Post SD	Post-Pre	p value
Self-Assessment							
Confident in ability to communicate effectively about patient care	38	4.03	0.59	4.42	0.55	0.395	.000***
Comfortable speaking up in situations regarding patient safety	38	4.24	0.54	4.58	0.50	0.342	.000***
Comfortable requesting for help when needed	38	4.53	0.73	4.74	0.45	0.211	.073
Confident in ability to be a patient advocate	38	4.32	0.62	4.53	0.51	0.211	.058
Confident in ability and responsibilities as part of the health care team	38	3.95	0.73	4.42	0.55	0.474	.000***
Respected by members of the health care team	38	4.13	0.67	4.61	0.55	0.474	.000***
Communication with Physicians							
Trust and respect my opinions about patient care	14	3.86	0.66	4.57	0.65	0.714	.003**
Comfortable approaching with a question	14	4.21	0.89	4.79	0.43	0.571	.006**
Comfortable asking for feedback	14	4.00	0.78	4.57	0.51	0.571	.014*
Comfortable approaching about their potential error	14	3.36	1.08	4.36	0.75	1.000	.000***
Comfortable approaching about own error	14	3.86	0.66	4.64	0.50	0.786	.000***
Resistant to my advice about patient care	14	2.93	1.00	3.14	1.61	0.214	.551
Communication with Nurses							
Trust and respect my opinions about patient care	33	4.03	0.59	4.39	0.50	0.364	.000***
Comfortable approaching with a question	33	4.55	0.62	4.73	0.545	0.182	.083
Comfortable asking for feedback	33	4.18	0.88	4.55	0.67	0.364	.008**
Comfortable approaching about their potential error	33	3.58	1.00	4.21	0.78	0.636	.000***
Comfortable approaching about own error	33	4.16	0.72	4.59	0.50	0.438	.000***
Resistant to my advice about patient care	33	2.27	0.76	2.24	1.28	-0.030	.895
Communication with Pharmacists							
Trust and respect my opinions about patient care	32	4.03	0.65	4.47	0.51	0.438	.000***
Comfortable approaching with a question	32	4.59	0.62	4.78	0.42	0.188	.110
Comfortable asking for feedback	32	4.31	0.82	4.63	0.61	0.313	.016*
Comfortable approaching about their potential error	32	3.50	1.14	4.22	0.91	0.719	.001***
Comfortable approaching about own error	32	4.31	0.64	4.59	0.50	0.281	.005**
Resistant to my advice about patient care	32	2.44	0.95	2.13	1.13	-0.313	.039*
Communication with Respiratory Therapists							
Trust and respect my opinions about patient care	36	4.14	0.64	4.50	0.51	0.361	.001***
Comfortable approaching with a question	36	4.58	0.50	4.64	0.49	0.056	.324
Comfortable asking for feedback	36	4.39	0.60	4.58	0.50	0.194	.033*
Comfortable approaching about their potential error	35	3.60	1.01	4.23	0.65	0.629	.000***
Comfortable approaching about own error	36	4.28	0.66	4.53	0.56	0.250	.018**
Resistant to my advice about patient care	36	2.39	1.15	2.19	1.39	-0.194	.242
Communication with Paramedics							
Trust and respect my opinions about patient care	34	4.32	0.68	4.56	0.56	0.235	.009**
Comfortable approaching with a question	34	4.53	0.62	4.65	0.54	0.118	.211
Comfortable asking for feedback	34	4.26	0.75	4.50	0.62	0.235	.073
Comfortable approaching about their potential error	33	3.88	1.17	4.33	0.78	0.455	.002**
Comfortable approaching about own error	34	4.24	0.82	4.59	0.56	0.353	.002**
Resistant to my advice about patient care	34	2.35	1.28	2.38	1.37	0.029	.869

*Paired-sample t-tests were run to measure the significance of difference between pre-intervention and post-intervention responses, defined as $p < 0.05$.