Title
Gender Differences in Language of Standardized Letter of Evaluation Narratives for Osteopathic Emergency Medicine Residency Applicants

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Table 1. Intraclass correlations for each item and the overall EQual rubric. Confidence intervals and P values are also reported.

EQual Item	N	ICC	95% CI	P value
1. This EPA has a clearly defined beginning and end	11	0.667	(0.165 to 0.900)	0.009
2. This EPA is independently executable to achieve a defined clinical outcome	11	0.738	(0.342 to 0.921)	0.002
3. This EPA is specific and focused	11	0.648	(0.115 to 0.894)	0.013
4. This EPA is observable in process	11	0.729	(0.320 to 0.918)	0.003
5. This EPA is measurable in outcome	11	0.603	(0.003 to 0.880)	0.025
6. This EPA is clearly distinguished from other EPAs in the framework	11	0.780	(0.449 to 0.934)	0.001
7. This EPA describes work that is essential and important to the profession	11	0.705	(0.260 to 0.911)	0.005
8. Performing this EPA leads to recognized output or outcome of labor	11	0.595	(-0.016 to 0.878)	0.027
9. The performance of this EPA in clinical practice is restricted to qualified personnel	11	0.369	(-0.585 to 0.809)	0.160
10. This EPA addresses professional work that is suitable for entrustment	11	0.755	(0.385 to 0.926)	0.001
11. This EPA requires the application of knowledge, skills, and/or attitudes (KSAs) acquired through training	11	0.464	(-0.346 to 0.838)	0.091
12. This EPA involves application and integration of multiple domains of competence	11	0.32	(-0.708 to 0.795)	0.199
13. The EPA title describes a task, not qualities or competencies of a learner	11	-0.323	(-2.321 to 0.601)	0.668
14. This EPA describes a task and avoids adjectives (or adverbs) that refer to proficiency	11	0.367	(-0.589 to 0.809)	0.161
Overall	154	0.729	(0.652 to 0.793)	< 0.001

ICC, intraclass correlation; *CI,* confidence interval.

Table 2. Mean EQual rubric score for each EM EPA. Items were rated on a range of scores from 1 to 5. Scores below the revision cut point are bold and grey.

EPA	Mean EQual Score (± SEM)
1. Manage a low-acuity, low-complexity "stable" patient.	4.09 (± 0.11)
2. Manage a low-acuity, high-complexity "stable" patient.	4.09 (± 0.08)
3. Manage a potentially high-acuity complain in a "stable" patient.	4.09 (± 0.14)
4. Manage a high-acuity patient with a well-defined presentation, illness, or injury.	**4.04 (± 0.16)**
5. Manage a high-acuity, high-complexity patient (i.e., the undifferentiated unstable patient).	4.11 (± 0.23)
6. Manage multiple patients in the emergency department concomitantly.	**3.79 (± 0.20)**
7. Lead an ED team.	**3.61 (± 0.09)**
8. Transition patient care to other healthcare providers.	4.16 (± 0.18)
9. Manage interactions with consultants.	**3.98 (± 0.09)**
10. Manage complex and difficult situations.	**3.30 (± 0.26)**
11. Use recommended patient-safety and quality improvement processes.	**3.53 (± 0.26)**

EPA, entrustable professional activity; *SEM,* standard error of the mean.

31 Gender Differences in Language of Standardized Letter of Evaluation Narratives for Osteopathic Emergency Medicine Residency Applicants

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Learning Objectives: To determine if there is a difference in the language used to describe male and female osteopathic EM applicants within the SLOE.

Background: The standardized letter of evaluation (SLOE) is used by emergency medicine (EM) faculty to determine who to interview and rank for residency. Data has shown that female allopathic applicants score higher in communal characteristics and have a greater number of ability words in the narrative portion of the SLOE than their male counterparts.

Objective: To determine if there is a difference in the language used to describe male and female osteopathic EM applicants within the narrative portion of the SLOE.

Methods: Invited osteopathic applicants to a three-year EM residency within a single application cycle were included. Exclusion criteria included allopathic applicants, applicants without a SLOE, or applicants with a SLOE only from the interviewing program. Data collected included applicant gender, age, Alpha Omega Alpha designation, Gold Humanism designation, COMLEX 1 and 2 scores, and SLOE narratives.

The previously validated Linguistic Inquiry and Word Count (LIWC) product was used to analyze word counts from the narrative portion of each SLOE. Descriptive statistics, t-tests for nominal data, and the chi squared for categorical data was used.

Results: Of the 577 applicants, 88 were selected to interview and 50 were included in final analysis. There were no differences in baseline demographics between male and female applicants and females comprised one third of the final data set (Table 1). The average word count was 125.62 words with 16.55 words per sentence and no difference was noted between the sexes for either variable (p=0.17 and p=0.88) (Table 2). Words within the research category appeared more frequently in male applicants (p=0.04). No statistical difference between the genders was noted for any other category within the narrative portion of the SLOE.

Conclusion: The narrative portion of the SLOE does not appear to have an inherent gender bias for osteopathic medical students.

Table 1. Osteopathic applicant demographics.

Applicant Information				
Variable	Total (n = 50)	Male (n = 33)	Female (n = 17)	p-value
Age (y)	30 (25-38)	29.7 (3.513)	30.59 (2.917)	0.37
Comlex-1	577.3 (422-843)	584.2 (85.045)	563.8 (67.650)	0.40
Comlex-2	603.7 (421-819)	618.6 (80.063)	574.8 (65.190)	0.06
Alpha Omega	10 (20%)	27 (81.8%)	13 (76.5%)	0.65
Gold Humanism	9 (18%)	27 (81.8%)	14 (82.4%)	0.96

Table 2. Select LIWC output variables for osteopathic EM applicants. Data reported as median and interquartile range.

Variable	Total N=50 (95%CI)	Female n=17 (95% CI)	Male n=33 (95% CI)	p-value
Word count	125.62 (110.1-141.2)	110.65 (87.9-133.4)	133.33 (112.6-154.1)	0.17
Words per sentence	16.55 (14.9-18.2)	16.37 (12.7-20.0)	16.64 (14.9-18.3)	0.88
Affect	7.67 (6.9-8.4)	7.28 (5.9-8.6)	7.87 (6.9-8.8)	0.46
Positive	6.71 (5.9-7.5)	5.92 (4.3-7.5)	7.11 (6.3-8.0)	0.14
Negative	0.57 (0.3-0.8)	0.44 (0-0.9)	0.63 (0.3-0.9)	0.45
Social	11.60 (10.8-12.4)	11.61 (9.6-13.6)	11.60 (10.8-12.4)	0.99
Cognitive process	9.34 (8.4-10.3)	9.28 (7.6-11.0)	9.37 (8.2-10.6)	0.93
Affiliation	2.10 (1.6-2.6)	1.93 (1.1-2.8)	2.19 (1.6-2.8)	0.60
Achieve	4.79 (4.1-5.5)	4.81 (3.6-6.0)	4.78 (3.9-5.7)	0.97
Power	3.80 (3.3-4.3)	3.32 (2.7-4.0)	4.04 (3.3-4.8)	0.19
Reward	2.64 (2.2-3.1)	2.55 (1.9-3.2)	2.69 (2.0-3.4)	0.79
Risk	0.24 (0.1-0.4)	0.18 (0-0.4)	0.27 (0.1-0.5)	0.54
Standout	0.72 (0.5-1.0)	0.77 (0.3-1.2)	0.69 (0.4-1.0)	0.76
Ability	0.64 (0.4-0.9)	0.67 (0.2-1.1)	0.63 (0.4-0.9)	0.87
Grindstone	1.54 (1.2-1.9)	1.73 (1.0-2.4)	1.45 (1.0-1.9)	0.49
Teaching	1.44 (1.1-1.8)	1.47 (0.9-2.0)	1.43 (1.0-1.9)	0.92
Research	0.32 (0.1-0.5)	0.09 (-0.1-0.2)	0.44 (0.1-0.7)	0.04
Communal	0.11 (0-0.2)	0.08 (0-0.2)	0.12 (0-0.2)	0.65