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BRIEF REPORT

Family Medicine Clerkship Directors' Perspectives on USMLE Pass/Fail Scoring: A CERA Study

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ABSTRACT

Introduction: Reports on the effects of changing the United States Medical Licensing Exam (USMLE) Step 1 examination scoring to pass/fail are evolving in the medical literature. This Council of Academic Family Medicine Educational Research Alliance family medicine clerkship directors' study seeks to describe family medicine clerkship directors' perceptions on the impact of incorporation of Step 1 pass/fail score reporting on students' family medicine clerkship performance.

Methods: Ninety-six clerkship directors responded (56.8% response rate). After exclusion of Canadian schools, we analyzed 88 clerkship directors' responses from US schools. We used descriptive statistics for demographics and responses to survey questions. We used χ^2 analysis to determine statistically significant associations between survey items.

Results: Clerkship directors did not observe changes in students' overall clinical performance after Step 1 pass/fail scoring (60.8%). Fifty percent of clerkship directors reported changes in Step 1 timing recommendations in the past 3 years. Reasons included curriculum redesign (30.5%), COVID (4.5%), change in Step 1 to pass/fail (11.0%), and other reasons (3.7%). Forty-five percent of these clerkship directors did not observe a change in students' clinical medical knowledge after Step 1 went to pass/fail. Eighty-four percent of these clerkship directors did not compare student performance on clerkship standardized exams before and after Step 1 score changes. We found no significant relationship between Step 1 timing and student performance.

Conclusions: This study represents an early description of family medicine clerkship directors' perceived observations of the impact of Step 1 scoring changes on student performance. Continued investigation of the effects of USMLE Step 1 pass/fail scoring should occur.

INTRODUCTION

In 2022, the United States Medical Licensing Exam (USMLE) changed the Step 1 examination scoring to pass/fail. The literature reports several potential benefits of this Step 1 scoring change. This includes enhanced student well-being, increased preclerkship curriculum engagement, and the potential to expand education on topics not included in Step 1 content specifications.[1–3] However, decreased motivation to study, student concerns about distinguishing themselves to residency programs, and transfer of emphasis to Step 2 and core clerkship evaluations are possible consequences.[1,3–6]

Prior to the scoring change, most schools required students to pass Step 1 before entering clerkships.[7] The current literature on Step 1 timing reflects multiple perspectives. Surveyed medical students favor Step 1 completion directly after the preclerkship phase.[1] Schools that required Step 1 after clerkship completion observed decreases in shelf exam performance.[3] Cited benefits of Step 1 after completion of clerkships were decreased Step 1 failures and increased student autonomy regarding preparation.[3]

The literature on the impact of Step 1 opens opportunities to explore observations on the impact of Step 1 scoring on curriculum and student performance. This descriptive study uses data from the Council of Academic Family Medicine Educational Research Alliance (CERA) clerkship directors' study. The purpose of this study is to understand the impact of Step 1 scoring changes on family medicine clerkship student performance as perceived by clerkship directors.

METHODS

We developed survey questions for this descriptive study as part of the CERA clerkship directors' study.[8] Final quantitative survey questions go through several iterations of review by external reviewers, a CERA survey editor, and an assigned mentor. Prior to implementation, the survey is piloted by a small group for clarity. The CERA survey is 68 questions, including standard demographic questions and specific questions from five accepted proposals. Table 1 highlights questions relevant to this study. The survey was sent using the SurveyMonkey (SurveyMonkey, Inc) platform to 169 clerkship directors who were given 30 days to respond. The survey was completed in May 2023, approximately 18 months after the change in Step 1 scoring. Ninety-six clerkship directors responded (56.8% response rate). The CERA study protocol was approved by the American Academy of Family Physicians Institutional Review Board prior to data collection.[8]

Given the study focus on the USMLE, we excluded schools from Canada. We used descriptive statistics for demographics and responses to survey questions. We excluded missing responses in the descriptive analysis of each item. We used χ^2 analysis to determine statistically significant associations between survey items. We performed statistical analysis using SPSS Statistics, Windows Version 29.0 (IBM).

RESULTS

Responses were received from 88 clerkship directors across the United States.[8] These clerkship directors represented 58 public and 29 private medical schools. Clerkship directors reported varied clerkship structures (71.6% block only, 20.5% block and longitudinal, and 8.0% longitudinal only). The majority of clerkship directors reported clerkship length as either 4 (42.9%) or 6 (33.3%) weeks. Of the respondents, 81.8% of directors reported clerkship taking place in the third year of medical school.

Fifty-six percent of clerkship directors reported mandatory Step 1 study periods. Fifty percent of clerkship directors reported changes in Step 1 timing recommendations in the past 3 years. Reasons included curriculum redesign (30.5%), COVID (4.5%), change in Step 1 to pass/fail (11.0%), and other reasons (3.7%). Ninety percent of clerkship directors reported that Step 1 was recommended before starting clerkships. Seventy-three percent of clerkship directors reported a requirement to pass Step 1 prior to progressing to clerkships (Table 2).

Analysis of responses from the 41 clerkship directors reporting a change in Step 1 timing recommendations yielded the following results. Of the 9 clerkship directors that reported changes in Step 1 timing due to Step 1 scoring changes, 7 (77.8%) reported recommending Step 1 before clerkships and 6 (66.7%) required students to pass prior to clerkships. Nineteen (46%) of clerkship directors did not observe a change in students' clinical medical knowledge after Step 1 went pass/fail. Of the clerkship directors, 31 (84%) did not observe a change in students' overall clinical performance after Step 1 went pass/fail. Seven (84%) clerkship directors did not compare student performance on clerkship standardized exams before and after Step 1 score changes.

No clerkship directors noted an increase in student medical knowledge or clinical performance since Step 1 changed to pass/fail scoring. We found no significant relationship between a change in the timing of Step 1 and clerkship directors' reported perception of students' performance (Table 3).

DISCUSSION AND CONCLUSIONS

This study represents an early description of family medicine clerkship directors' perspectives on their observed impact of Step 1 scoring changes on student performance. Yadav and Dekhne et al found that USMLE Step 1 scores decreased right after transition to pass/fail; however, that occurred 1 year after the COVID pandemic began.[9] Following the change to Step 1 pass/fail scoring, clerkship directors in our study did not observe a significant impact on student medical knowledge and overall clinical performance in the family medicine clerkship. We also found that clerkship directors are not looking at the effect of the Step 1 scoring change on standardized clerkship assessments. Medical student education leadership, with more authority to change school policy, should take a close look at the impact of Step 1 scoring on student standardized assessment performance.

Sampled schools overall have not made substantial changes to their recommendations for Step 1 timing. Schools that are adjusting Step 1 timing recommendations are mostly driven by the school's own curriculum change. This finding supports deans' prior perspectives that the change in Step 1 to pass fail would not be a predominate driver of curriculum change.[10]

One limitation of this study was that observations were limited to only family medicine clerkship directors. Survey demographics did not specify allopathic or osteopathic schools; eight osteopathic schools were in the survey pool. Further research should be done before more broad generalizations can be derived. The number of responses for schools that made changes in Step 1 recommendations due to Step 1 pass/fail scoring limited the power of analysis. Clerkship directors that affirmed changes in timing of Step 1 recommendations were not asked about prior recommendations or the specific implemented changes. Lastly, schools that are considering making changes to Step 1 timing recommendations but have not had enough time to implement them are not represented in this study. Future studies are warranted to explore actual observed benefits and consequences of making Step 1 pass/fail.

Presentations

Saucier A, Dubey S, Schneider D, Blyden K. Clerkship Directors' Observations on Potential Impact of Step 1's Shift From Scores to Pass/Fail. Poster Presentation. Society of Teachers of Family Medicine Conference on Medical Student Education. February 2024.

TABLE 1. Survey Questions on USMLE Step 1 Becoming Pass/Fail

1. How does your school protect time for Step 1 study preparation?
2. Has your school changed its recommendations or requirements regarding Step 1 timing in the past 3 years? If so, what was the primary reason?
3. When does your school recommend students take their Step 1?
4. Are students required to pass Step 1 before starting their clerkship rotations (this includes students pulled from clerkships if they fail Step 1 on first attempt)?
5. If your school has made a change in the timing of Step 1, has student performance on the standardized tool to assess medical knowledge in FM clerkship changed?
6. If your school has made a change in the timing of Step 1, on Step 1 results have you subjectively observed a difference in students' medical knowledge in clinical settings?
7. Since the change to pass/fail on Step 1, have you subjectively observed a difference in overall student clinical performance (eg, communication, patient care, professionalism, clinical reasoning)?

Abbreviations: USMLE, United States Medical Licensing Exam; FM, family medicine

TABLE 2. Recommendations and Changes Made by Schools Since Step 1 Pass/Fail Scoring

Survey question Item response rate* (n, %)	Survey answer	Responses (n, %)
Study time for Step 1 (77, 87.5)	Mandatory block (4–8 weeks)	(43, 55.8)
	Elective block (4–8 weeks)	(7, 9.1)
	Built-in breaks for students to prepare and study	(18, 23.4)
	No protected time	0
	I am unaware of how school protects time.	(9, 11.7)
School recommendations for Step 1 timing (78, 88.6)	Before starting clerkships	(70, 89.7)
	During clerkship rotations	(2, 2.6)
	After finishing clerkship rotations	(6, 7.7)
School changes to Step 1 timing in past 3 years (82, 93.2)	No change	(4, 50.0)
	Yes, due to COVID-19	(4, 4.5)
	Yes, due to curriculum redesign	(25, 30.5)
	Yes, due to changes in Step 1 to pass/fail scoring	(9, 11.0)
	Yes, other	(3, 3.7)
Student requirement to pass Step 1 prior to clerkships (79, 89.8)	No	(21, 26.6)
	Yes	(58, 73.4)

*Number of responses for item; percentage of items with a response.

TABLE 3. Observed Effect on Student Medical Knowledge and Clinical Performance

Survey question Item response rate* (n, %)	Survey answer	Responses (n, %)	χ^2
Since change in Step 1 scoring to pass/fail, clerkship director observes differences in overall student clinical performance. (79, 89.8)	I have observed a decrease.	(14, 17.7)	χ^2=4.592, *P*=.597
	I have not observed a change.	(48, 60.8)	
	I have observed an increase.	0	
	I have not compared.	(17, 21.5)	
For schools that made a change in timing of Step 1, family medicine clerkship director observations:			
Changes in students' performance on standardized tool to assess medical knowledge in family medicine clerkship (37, 90.2)	I have compared and no changes.	(3, 8.1)	χ^2=5.154, *P*=.524
	Students with scored Step 1 had higher scores.	(3, 8.1)	
	Students with scored Step 1 had lower scores.	0	
	I have not compared.	(31, 83.8)	
Differences in students' medical knowledge in clinical setting (35, 85.4)	I have observed a decrease.	(7, 20.0)	χ^2=5.272, *P*=.509
	I have not observed a change.	(19, 54.3)	
	I have observed an increase.	0	
	I have not compared.	(9, 5.7)	

χ^2=relationship between schools that changed Step 1 timing and clerkship student performance.
*Number of responses for item; percentage of items with a response.

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