Perspectives of Family Medicine Clerkship Directors Regarding Forward Feeding: A CERA Study

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BACKGROUND AND OBJECTIVES: Forward feeding signifies sharing information about learners for purposes of professional and academic advancement, and promotes progression toward a competency-based educational continuum. The aim of this study is to assess reasons for difficulty or failure of the family medicine clerkship and investigate utilization and methods of forward feeding. Reasons behind medical school policies regarding forward feeding are also evaluated.

METHODS: Data were collected through the 2013 Council of Academic Family Medicine (CAFM) Educational Research Alliance (CERA) Family Medicine Clerkship Director survey. Directors rated reasons for clerkship difficulty or failure on a 6-point Likert scale. They also reported if they utilized forward feeding, to whom, and the communication method used. Finally, they were asked about factors influencing institutional policy toward forward feeding, including threats of litigation. Results were compared between public and private schools, and based on tenure as clerkship director. Analyses were performed using chi-square or Fisher’s exact test.

RESULTS: Knowledge deficits were the most common reason for clerkship difficulty and failure, followed by professionalism difficulties. Over half of respondents engage in forward feeding, and almost all pass this information to other clerkship directors. Concern for student privacy and faculty bias were noted as two important factors influencing school policy. While almost half of respondents felt that litigation fears influenced their school’s approach to forward feeding, few were aware of any related litigation.

CONCLUSIONS: Forward feeding is only utilized by half of clerkship directors. More studies regarding the potential impacts of this practice are warranted.

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Undergraduate and graduate medical education are currently moving toward a competency-based framework, in which students must meet specific milestones. The implementation of this model began within graduate medical education (GME), and has since made the natural progression to undergraduate medical education (UME). A challenge arises in the transition from medical school to residency, as evidenced by a recent study of emergency medicine interns that were not meeting all level 1 Milestones ascribed by the Accreditation Council for Graduate Medical Education (ACGME) upon entering residency. Questions remain regarding who holds responsibility for ensuring that these level 1 ACGME Milestones are met and how medical schools should convey accurate student assessments to residency programs. The conventional medical student performance evaluation (MSPE) has proven to be highly variable and even unreliable, as it does not contain competency-based measures or areas of improvement for the incoming intern.

Similarly, a lack of continuity among undergraduate clerkships exists, resulting in fragmentation in the curriculum. As early as 1979, the Association of American Medical Colleges’ (AAMC) Clinical Evaluation Program voiced concern about the lack of student performance information shared between rotations, and the potential subsequent inability to identify struggling students earlier in their education. A decade later, the 1989 Generalists in Medical Education unanimously agreed that information should be shared under certain circumstances. However, an additional ten years later, a survey of

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medical school deans found that only 56% of respondents had written policies permitting sharing assessment information about students, and only 35% had policies permitting sharing information regarding academic performance or professional conduct. A 2006 survey of internal medicine clerkship directors showed that the number of institutions with formal written policies had decreased to 14%, with 12% specifically prohibiting discussion of student difficulties with other faculty. Reasons for prohibiting information among faculty included fear of litigation, fear of creating bias, and fear of violating student confidentiality. Despite these concerns, 64% of responding clerkship directors reported that they are in favor of sharing information about struggling students with other clerkship directors outside of formal medical school committees.

Medical education must be viewed as a continuum in order to ensure crucial educational objectives are met, must appropriately identify struggling students early, and also provide meaningful data to GME programs. One method of executing this vision of progression toward competency is forward feeding, which refers to the sharing of information about learners among clerkships for the purpose of professional and academic advancement of the student. The aim of this study is to assess the most common reasons for students who demonstrate difficulty or fail the family medicine clerkship and investigate elements concerning forward feeding, including utilization frequency, to whom information is fed, and various methods of forward feeding. Reasons for medical school policies regarding forward feeding are also evaluated, as is knowledge of prior litigation related to student remediation and forward feeding.

Methods

We obtained data for this study as part of the 2013 Council of Academic Family Medicine (CAFM) Educational Research Alliance (CERA) Family Medicine Clerkship Director survey. CERA is a joint initiative of four major academic family medicine organizations (Society of Teachers of Family Medicine, North American Primary Care Research Group, Association of Departments of Family Medicine, and Association of Family Medicine Residency Directors). Survey teams submitted questions for inclusion in the CERA survey, which is designed as an omnibus survey incorporating several distinct subprojects for consistency with the overall subproject aim, readability, and existing evidence of reliability and validity. The CERA steering committee evaluated submissions based on literature review, the need for the study, appropriateness of methods, and likelihood of publication. A CERA mentor was assigned to approved projects in order to help refine survey questions and participate in data analysis and manuscript preparation. After survey team refinement, family medicine educators pretested all approved questions, which were then subsequently modified for flow, timing, and readability. This process is in keeping with standards set forth in the literature.

The CERA Family Medicine Clerkship Director Survey is distributed annually to the institutional representatives of qualifying allopathic medical schools. The institutional representative is the clerkship director at the main campus of the school or their designate. Qualifying medical schools are accredited by either the Liaison Committee for Medical Education (LCME) or Committee on Accreditation of Canadian Medical Schools (CACMS), and are located within the United States or Canada. Because there is no centralized list of clerkship directors, names and contact information were solicited through communication within the STFM Group on Medical Student Education. There were 129 unique US and 15 unique Canadian individuals identified who served as family medicine educators directing a family medicine or primary care clerkship. To qualify, the school must have students who complete a family medicine clerkship or a primary care clerkship that has a required family medicine component, with a family medicine educator responsible for at least that component.

CERA administered the survey between July 9 and August 27, 2013. They issued the invitation to participate through email, and each included a letter encouraging participation from presidents of each of the four participating organizations listed above, in addition to the survey link. Assigned family medicine educators contacted nonresponders through personal email and telephone to verify clerkship director status, email address accuracy, and promote participation. The American Academy of Family Physicians Institutional Review Board approved this study.

Survey Items

Respondents provided demographic information about themselves, their schools, and their clerkships. They reported school location as within Canada or the United States, and whether the school is public or private. Respondents also documented their number of years of service as clerkship director. Additionally, clerkship directors rated potential reasons for student difficulty or failure on the clerkship rotation for commonality on a 6-point Likert scale, ranging from “no relevance” to “very common reason”. They reported whether or not they utilized forward-feeding regarding a student’s performance difficulties on the clerkship, to whom they fed the information, and the communication method used, again ranking these responses on a 6-point Likert scale ranging from “never” to “very often”. Finally, they provided rankings for the importance of various factors that may influence their school’s policy related to forward-feeding on a 5-point Likert scale from “very unimportant” to “very important”, including threats related to litigation from either student remediation or forward feeding.
**Statistical Analysis**

We used descriptive statistics to characterize and summarize the demographic data. We compared all results between public and private medical schools. We compared questions related to forward feeding based on years served as clerkship director, which were grouped as ≤ 3 years, 4 to 7 years, and ≥ 8 years. These groupings were chosen in order to ensure relatively equal proportions in each group. We completed all analyses using chi-square or Fisher’s exact test. Significance was defined as \( P<0.05 \). We performed all data analyses using SAS 9.4 (SAS Institute Inc., Cary, N.C., USA).

**Results**

CERA sent surveys to 129 US and 15 Canadian family medicine clerkship directors. The overall response rate was 72.9%, with 94 US and 11 Canadian clerkship directors participating. As not all respondents fully completed the survey, numbers of respondents varied per question and are shown in the respective figures. The majority of respondents (72.4%) were at public medical schools (Table 1). Figures 1 and 2 outline the most commonly identified reasons for students having difficulty or failing the family medicine clerkship. Poor fund of knowledge was most frequently rated as a common or very common reason (n=47, 60.3%) for difficulty, with professionalism falling as a close second (n=44, 56.4%). Clinical problem solving was noted as a common or very common reason by 52.3% (n=34) of respondents. Similarly, the reason reported most often as a common or very common reason for failure of the clerkship is failure of the final exam (n=51, 58.6%), correlating with poor fund of knowledge. In second place again is poor professional performance (n=38, 47.5%). No differences were noted among public versus private medical schools.

Among responding clerkship directors, 59 (57.3%) stated that they do indeed forward feed information about medical student performance difficulties on the family medicine clerkship to other members of the medical education team. Clerkship directors most commonly forward feed to other clerkship directors, with 87.7% (n=50) reporting often or very often, and to student deans (n=46, 80.7%) (Figure 3). This is done often or very often through formal clerkship director meetings (n=47, 71.9%) (Figure 4). There are no differences when comparing method of forward feeding between public and private institutions or by years of service as clerkship director.

Respondents most frequently listed concern for student privacy (84 out of 101 respondents, 83.2%) and faculty bias (79 out of 101 respondents, 78.2%) as important or very

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Figure 1: Frequency of Learner Difficulties on the Family Medicine Clerkship

- Poor Communication Skills
- Clinical Problem Solving Skills
- Poor Knowledge
- Professionalism
- General Organizational Issues
- Challenging Personality

Figure 2: Frequency of Causes for Student Failure of the Family Medicine Clerkship

- Final Written Exam
- Poor Clinical Performance
- Professional Performance
- Failed OSCEs
Figure 3: Frequency of Forward Feeding Between Clerkship Directors and People in Other Roles

Figure 4: Frequency of Forward Feeding Methods Utilized by Clerkship Directors
important factors influencing their school's policy on forward feeding. Almost half (47 out of 99 respondents, 47.5%) of respondents felt that the fear of litigation was an important or very important factor influencing their school's approach to forward feeding. However, only 28 out of 101 (27.7%) respondents were aware of threats of litigation related to student remediation, and only two (2.0%) were aware of litigation threats related to forward feeding. No differences were observed when comparing public versus private medical schools.

Discussion

Based on the results of this study, the top reasons for medical student difficulty or failure of the family medicine clerkship are poor fund of knowledge and professionalism concerns. Student deficits in these areas have been cited by multiple specialties as a frequent source of medical student difficulty that exist across the educational continuum of medical student clerkships. Performance shortfalls in the domains of medical knowledge and professionalism in both medical school and residency have also been linked to subsequent disciplinary action by state boards, regardless of specialty. The question now remains whether forward feeding would facilitate the early detection and prevention of such issues in future.

Over half of responding clerkship directors engage in forward feeding, despite concerns regarding faculty bias and student privacy. These results are similar to the previous internal medicine clerkship director study by Frellsen et al. The concern for creation of a Pygmalion effect could bias student performance either positively or negatively, whereby high expectations may increase student performance or low expectations may worsen student performance. Even though clerkship directors express these reservations, the utilization by the majority indicates that most educators feel the risks of forward feeding are outweighed by the benefits of potential earlier identification of academic or professional difficulties. Despite our initial hypothesis that forward feeding may be more common in private medical schools and by more seasoned clerkship directors, our data does not reflect any trends.

Additionally, almost half of respondents felt that fear of litigation influenced their school’s approach to forward feeding, which may be partially explained through controversy interpreting student confidentiality, as outlined in the Family Educational Rights and Privacy Act (FERPA). This law prohibits disclosure of any identifiable information from educational records. Significantly, this does not apply to information gained verbally. Violation of this law is a chief concern for medical school administrators and perhaps one of the greatest institutional determinants, despite our finding that over half of clerkship directors engage in forward feeding. However, paramount to student privacy is the institution’s obligation to society to provide well-trained graduates and to provide the necessary remediation or termination of students unable to achieve competency. Some have proposed a policy, which is agreed upon by both the institution and student, clearly outlining what can and cannot be discussed in order to protect the student against unregulated information sharing among faculty. Equally important is including students in the process to ensure that all parties actively participate in the discussion and to ensure transparency, thereby allowing the student to gain the greatest benefit from the feedback provided.

Forward feeding is a means of sharing information about learners with a goal of progressing learner competency. As the application of competency-based education is still being developed, there are no currently agreed upon outcome measures for standardized comparison. Other approaches to progressing competencies are being utilized, such as longitudinal clerkships and increasing the standardization and frequency of feedback, but these approaches lack standardized outcomes. The AAMC launched an effort towards standardization in 2014 to pilot entrustable professional activities (EPAs), which include 13 activities that all medical students should be able to perform after completion of undergraduate medical training, regardless of specialty. These EPAs offer a pragmatic approach to evaluating competence in clinical settings and create a longitudinal view of each student’s performance. By gathering EPA performance data from numerous assessors for each individual student, the AAMC hopes to ensure a process of longitudinal formative feedback and provide better opportunities for both remediation and potential acceleration of responsibilities.

Our study has several limitations. Although the study was distributed to all known family medicine clerkship directors, there is a possibility of nonresponse bias. However, the effect of nonrespondents on the results would have likely been variable and thereby not altered the study findings. Additionally, although each question contained a list of potential options, important factors may have been inadvertently omitted from the list. This survey also did not include questions about whether clerkship directors believe that forward feeding assists in the early identification of struggling students, if their school accurately identifies struggling students, or barriers to identification. Finally, statistical correction for multiple comparison analyses was not made.

Despite the concerns raised, most responding clerkship directors engage in forward feeding. Faculty members involved in UME have a professional obligation to both the medical student and society in the education of future physicians. Therefore, it is imperative that concerns regarding medical knowledge or professionalism are addressed in an open and thoughtful manner. We advocate sharing specific, predefined
information about struggling learners in order to improve their educational experience and increase their potential for success. By developing institutional policies about the types of information shared and with whom the information sharing should occur, faculty will be more comfortable discussing feedback for the benefit of the student. This study also reinforces two domains of medical education (medical knowledge and professionalism), which may require additional intervention for some students. If this discussion continues to residency program directors, it would impact GME as well by allowing educators to better tailor resident training to meet the needs of the learner, with the ultimate goal of producing a more skilled clinician. Future studies should consider comparing educational outcomes between institutions that allow forward feeding and those that prohibit it.

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References