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Measuring Quality in Ethics Consultation

Sally E. Bliss, Jane E. Oppenlander, Jacob M. Dahlke, Gordon J. Meyer, Eva M. Williford, and Robert C. Macauley

ABSTRACT

For all of the emphasis on quality improvement—as well as the acknowledged overlap between assessment of the quality of healthcare services and clinical ethics—the quality of clinical ethics consultation has received scant attention, especially in terms of empirical measurement. Recognizing this need, the second edition of *Core Competencies for Health Care Ethics Consultation*[1] identified four domains of ethics quality: (1) ethicality, (2) stakeholders' satisfaction, (3) resolution of the presenting conflict/dilemma, and (4) education that translates into knowledge. This study is the first, to our knowledge, to directly measure all of these domains. Here we describe the quality improvement process undertaken at a tertiary care academic medical center, as well as the tools developed to measure the quality of ethics consultation, which include post-consultation satisfaction surveys and weekly case conferences. The information gained through these tools helps to improve not only the process of ethics consultation, but also the measurement and assurance of quality.

BACKGROUND

Over time there has been increasing attention given to the assessment of quality in healthcare. Addressing concerns ranging from improving patients' safety to eliminating unnecessary costs, the measurement of quality affects public perception,[2] professional accreditation,[3] and reimbursement for organizations[4] as well as individuals.[5] Quality assessment efforts do not merely note the level of the quality of care currently being provided, but also identify ways the level of quality can be increased. As Sir William Thomson, Lord Kelvin, famously said, "If you can not measure it, you can not improve it."[6]

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As part of the "quality movement," there has been a growing recognition of the overlap of ethics and quality assessment.[7] In other words, ethical organizations tend to be high-quality organizations.[8] When applied to clinical ethics consultation (CEC), however, the measurement of quality is particularly complex, due to the unique nature of each patient and dilemma, as well as the many variables involved, which range from the practice environment (for example, teaching hospital, community hospital, critical access hospital), to the professional background of consultants (for example, medicine, law, philosophy), to their degree of formal training (for example, advanced degree, clinical fellowship, apprenticeship).[9] Absent a reliable method to measure quality, it is impossible to determine whether an ethics consultation service aligns with accepted standards, or to identify aspects of the ethics consultation service that require improvement.[10] This may negatively affect the care of patients and prevent necessary resources from being allocated to CEC.

Recognizing the need for reliable measures, the Ethics Consultation Service (ECS) at the University of Vermont Medical Center—a 562-bed academic hospital that serves a population of more than one million—recently undertook a two-year project to measure and improve its quality. The ECS is staffed by two clinical ethicists (SEB, RCM) who, combined, have more than 40 years of clinical practice experience, each having completed advanced degrees and mentorship in ethics; and a halftime administrative assistant (GJM).

We used the three study areas suggested by Donabedian to begin our project:

1. Structure: the material and/or human resources, professional qualifications, and organizational reporting that frames the service.
2. Process: "the interactions between the service that is being evaluated and the individuals who are served by the service."[11]
3. Outcomes.

The literature on measuring the quality of CEC is modest at present,[12] and literature that focuses on the processes of CEC tends to be descriptive, not empirical.[13] But while an appropriate process is a necessary condition to provide high-quality ethics consultation, it is not a sufficient condition. It is quite possible to be responsive, inclusive, and attentive to detail, yet still provide inaccurate or ill-advised counsel, fail to positively affect a complex situation, and alienate key stakeholders.

A few studies have sought to measure the quality of CEC, generally using indirect measures such as length of stay in the hospital or expenditures.[14] These are important considerations, to be sure, but it is not always "ethical" to save money, nor is it necessarily unethical to prolong a patient's length of stay.

Recognizing a need to directly measure the quality of outcomes in ethics consultation, the second edition of the American Society for Bioethics and Humanities' *Core Competencies for Healthcare Ethics Consultation* (hereafter, the *Core Competencies*) lays out four specific domains:

1. Ethicality
2. Stakeholders' satisfaction with consultations
3. Resolution of the presenting conflict/dilemma
4. Education that translates into knowledge.[15]

Ours is the first study, to our knowledge, to directly measure all of these domains, primarily through the use of a Post-Consultation satisfaction Survey (PCSS) and discussion of each consultation during a weekly case conference. Previous studies that have measured stakeholders' satisfaction were either limited to specific settings[16] or a pediatric population,[17] surveyed only the requesting physicians,[18] or surveyed only patients and their family members.[19] The only other study, to our knowledge, to survey both staff as well as patients and families included only 20 patients, and did not include other measures of outcome quality that more directly address ethicality and education.[20]

The remainder of this article describes our quality improvement process, the tools developed, and the valuable lessons learned through "operationalizing" quality improvement.

METHODS

Recognizing that the structure of the ECS had been determined largely by higher level institutional decisions, our quality measurement and improvement project focused on process and outcomes.

Process

We reviewed the key process elements noted in the *Core Competencies* and divided them into three phases: (1) preceding formal consultation, (2) during the course of the consultation, and (3) following the documentation of recommendations from the consultation (see table 1). Phase 1 involves the initial response to the consultation, including verification that there is a legitimate "ethics question" (as opposed to a biotechnical, communication, or relational question[21]), as well as notification of key stakeholders such as the attending physician. Phase

2 includes the acquisition of information directly from the patient, staff, and other involved parties, as well as analysis of the ethical dilemma at hand and the provision of recommendations. Phase 3 involves post-consultation follow up and application of the lessons learned, which largely depends on the outcome of the consultation, and thus will be discussed in the next section of this article.

We hypothesized that completing all of the recommended elements would promote increased attention to detail and assist in identifying practical steps to improve the overall process, and so we devised the Intake Quality Improvement Form (the IQIF, shown in figure 1). The top section of the IQIF is completed by the ethics consultant, and the information recorded by the consultant allows the ECS to measure *responsiveness* (the time from the request for an ethics consultation, to the initiation of the consult, to its completion), as well as *adherence to expectations related to confidentiality* (whether the requestor requested that her or his identity to be withheld) and *transparency* (the notification of the patient's attending physician and the patient's primary careprovider that a consult was requested). We record the number of nonbusiness hours spent on a consult, as it may ultimately impact levels of staffing (and, thus, the structure of the ECS).

All CECs at the University of Vermont Medical Center are documented in the patient's medical record using a Consultation Note Template, based on the Orr-Shelton Model of CEC.[22] This Consultation Note Template (see figure 2) includes all of the process elements recommended in the *Core Competencies*. The format of the Consultation Note Template may seem familiar, since it mirrors the clinical progress note format utilized by medical clinicians across the United States. The Template records information from each consultation in three sections: (1) identification/assessment, (2) analysis/discussion, and (3) conclusion/recommendations. For the purposes of quality improvement, we evaluate theory and application separately in the "Discussion" section of the Template, which results in nine scored sections (see table 2). Our administrative assistant (who was trained in a field that is unrelated to bioethics) assesses whether all of the required elements were recorded in each Consultation Note Template, and this rate of completion is entered as a score on the IQIF that is created for each consultation. The IQIFs thus serve as records of the (in-) completion of the recommended process elements for each CEC.

As just described, the scoring of the completeness of each Consultation Note Template on an IQIF is based solely on components included in the Consultation Note. This scoring does not require any specialized training in bioethics (although some basic explanations and definitions of terms are required to indicate the inclusion/exclusion of the required elements). When the information recorded on a Consultation Note is missing or unclear—or if every element of a section (for example, the demographics) is not complete—this is scored as a deficiency. Our administrative assistant maintains an internal spreadsheet that tracks the CECs performed, the completeness of Consultation Notes, and identifies topics or themes that recur. These topics and themes are further coded to identify trends and/or opportunities to make corrections to the consultation process or offer educational interventions.

In addition, two of the elements of our Post-Consultation Satisfaction Survey (the PCSS, which is discussed in detail below) have relevance to the process of ethics consultation. These elements are the timeliness and accessibility of the ECS, and the timeliness and informativeness of the CECs.

TABLE 1. Ethics consultation process elements

Phase 1	Phase 2	Phase 3
Timely response	Visit patient, if applicable	Follow up with stakeholders
Assess for appropriate consultation	Interview stakeholders	Identify systems issues
Notify stakeholders	Facilitate moral deliberation	Evaluate/improve consultation process
Clarify and/or formulate ethics question	Identify decision maker(s), as needed	
Review medical record	Determine need for formal meeting	
Gather ethics knowledge	Synthesize, communicate information	
	Provide recommendations	
	Provide documentation	

Elements adapted from ASBH, *Core Competencies for Healthcare Ethics Consultation,* 2nd ed. (Glenview, Ill.: ASBH, 2011).

FIGURE 1. Intake Quality Improvement Form (IQIF),

Ethics Consultation Intake/Quality Improvement/Coding Worksheet (May 2012)

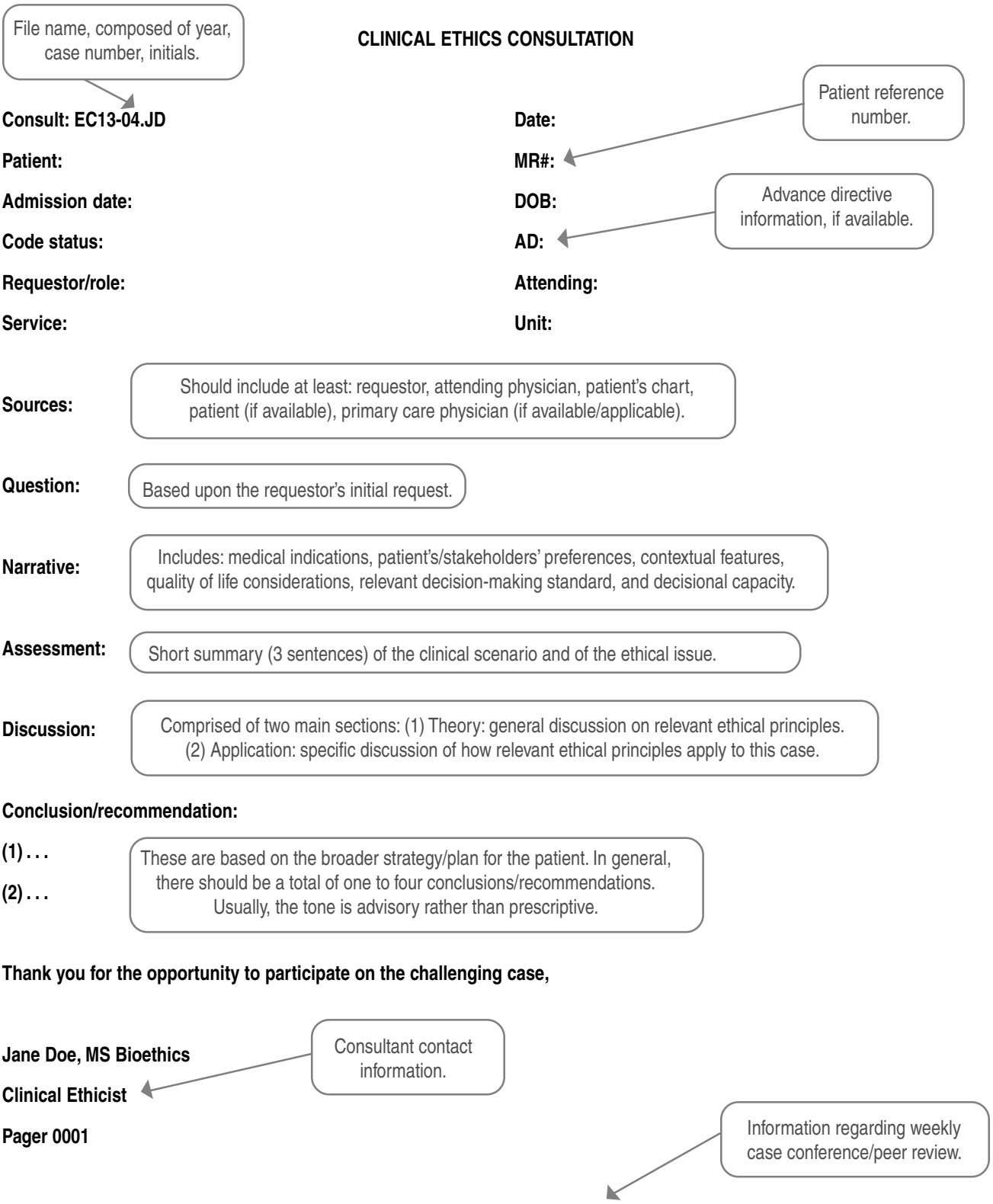
CONSULT # EC-13.JD _____	**NAME:** _____
Date Consult Requested: _____ Request Urgency: [Stat] [Today] [As Convenient] _____ Date Initiated: _____ Any Non-Business Hours Involved? [Y] [N]	Health prior to admission: [Ex] [Gd] [Fr] [Sr] [Cr] Health at Time of Consult: [Ex] [Gd] [Fr] [Sr] [Cr] PCP* Name: _____
Confidential Consult? [Y] [N] If YES Reason: _____	PCP Notified? [Y] [N] Attending Notified? [Y] [N]

Question Coding	**Discussion Coding**
[ ] Patient Autonomy [ ] Decision Making Capacity [ ] Professional Obligations & Duties [ ] Surrogate/Substitute Decision Making [ ] Goals of Treatment—Identify/Clarify [ ] Technology/therapeutics—start/stop; use/not use [ ] Other	[ ] Beneficence [ ] Non-Maleficence [ ] Autonomy [ ] Justice [ ] Utilitarianism (greatest good for greatest number) [ ] Deontology (action based on duties) [ ] Rights & responsibilities [ ] Moral distress [ ] Surrogate decision-making role or hierarchy of [ ] Maternal/fetal [ ] Pediatric [ ] Cultural/religious issues [ ] Informed consent (accuracy, completeness) [ ] Medical error [ ] Professional ethics [ ] Legal issue or question [ ] Nonbeneficial treatment

Recommendations/Conclusions	**Quality Measurements**
[ ] Moral standing of various persons [ ] Continue to evaluate patient's decision making capacity [ ] Actions to promote autonomy/decision making capacity [ ] Respect patient refusal/treatment of objection [ ] Determine limits of patient/surrogate autonomy [ ] Establish level of certainty about patient previously spoken requests [ ] Recommend consult [ ] Recommendations about plan of care [ ] Articulate the ethical standard of care [ ] Differentiate between obligatory and optional treatment [ ] Need a management/patient/family conference [ ] Appropriate wording for specific orders, etc. [ ] Discharge or disposition plans [ ] Moral support for staff [ ] POLST/COLST/Advance Directive Forms	[Y] [N] Patient Demographics [Y] [N] Sources [Y] [N] Question [Y] [N] Narrative/Case Summary [Y] [N] Assessment [Y] [N] Discussion: theory section [Y] [N] Discussion: application of theory [Y] [N] Recommendation/Conclusion [Y] [N] Closing/Contact Information **Case Follow Up** Quality Surveys Sent: [ ] Discharge date/Disposition: [ ] Coding Completed: [ ]

* PCP is an acronym for primary care physician

FIGURE 2. Consultation Note Template, created using the Orr-Shelton Method.



Outcomes

Recognizing the challenges inherent in measuring the quality of the outcomes of consultations, we use three tools to evaluate the four outcome-related domains listed in the *Core Competencies:* the PCSS, which is sent to all staff participants; weekly ethics case conferences; and discussion of especially complex cases (as needed) by the ECS.

Post-Consultation Satisfaction Survey

After a CEC is completed, our administrative assistant sends an invitation to complete a PCSS to the staff who were identified as sources for the consultation and for whom email addresses are available. (This anonymous survey was deemed exempt by the University of Vermont Institutional Review Board.) The online survey is deployed through SurveyMonkey and consists of nine questions, including three that elicit demographic information about the respondent. The remaining six questions ask the respondent to rate the following statements on a five-point Likert scale from "strongly disagree" to "strongly agree":

Q1. I would recommend an ethics consult to others in a similar situation.
Q2. The ethics consultation clarified the goals of care.
Q3. The ethics consult improved my understanding of the situation.
Q4. The ethics consult was informative and timely.
Q5. The ethics consult clarified aspects of the question raised.
Q6. The ECS was accessible and timely.

At the conclusion of the survey, respondents are given the opportunity to provide free-text comments and feedback. Three analysts (GJM, as well as two retired ethicists who serve on the ECS) independently code the comments to identify recurring themes and categorize them as having negative or positive sentiments. Any discrepancies in the coding are discussed by the three analysts as a group until they achieve consensus.

Weekly Clinical Ethics Case Conference

The ECS utilizes the rather rare "individual consultant model," by which each consultation is performed by the on-call ethicist.[23] The benefit of such a model is responsiveness, but the primary drawback is a lack of interdisciplinarity and the risk of bias. To compensate for this, a weekly, hour-long ethics case conference is held to review recent consultations. The conference is held at a regular place and time, to provide ease of attendance for multi-

TABLE 2. Sections of the Consultation Note Template based on the Orr-Shelton Method, see figure 2

Consultation note section	Goals	Elements of documentation
Demographics		Patient's name, clinical service or unit, attending physician, request date, requestor's name and role
Sources		Stakeholders communicated with during the consultation
Question		Requestor's ethical concern (the ethics question that initiated the consultation)
Narrative		History, summary of current context*; requestor's description of circumstances; relevant information from advance directive (if present); meetings held; ethical concerns and steps already taken
Assessment	Identification	Clear, concise statement of the ethics question
Discussion (theory)	Analysis	Summary of ethical analysis
Discussion(application)	Analysis	Identification of decision maker, options considered and whether they were deemed ethically justifiable, explanation of whether agreement was reached
Conclusions and recommendations	Resolution	Recommendations and actions planned
Closing		Name of consultant, contact information

*Information should include: medical facts, patient's preferences, stakeholder's preferences, contextual features (culture, religion, social supports), quality of life considerations.

The model is based on these sources: R. Orr and W. Shelton, "A process and format for clinical ethics consultation," *The Journal of Clinical Ethics* 20, no. 1 (Spring 2009): 79-89. R. Jonsen, M. Siegler, and W.J. Winslade, *Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine* (New York: McGraw Hill, 2006); ASBH, *Core Competencies for Healthcare Ethics Consultation,* 2nd ed. (Glenview, Ill.: ASBH, 2011).

disciplinary participants. The de-identified cases that are discussed are most often resolved by the time of the weekly case conference, although some open or ongoing cases are discussed. All members of the hospital/medical school community are invited to attend. The weekly case conference offers attendees continuing medical education (CME) credit hours, and, as part of the CME certification process, gathers weekly and yearly quantitative feedback for the ECS.

Discussion with the Healthcare Ethics Committee

For especially complex consultations—as well as those with significant organizational implications—discussion with the Healthcare Ethics Committee (HCEC) is available. This can take place in the context of its regularly scheduled monthly meetings, or else on an *ad hoc* basis (usually with a subset of the HCEC). The relationship of all measurements of the four domains of outcome quality is summarized in table 3.

RESULTS

In the calendar years 2011 and 2012, there were 153 consultations performed and evaluated using the quality assessment tools. The overwhelming majority of the Consultation Note Templates included every one of the nine required process components (see table 2 for the Consultation Note Template sections). Approximately 9 percent of the Consultation Note Templates were missing a demographic element, but each of the other eight sections was complete at least 97 percent of the time. This high rate of completion is consistent with what has been reported at other institutions.[24]

The timeliness of a CEC was calculated from the IQIF, which records the dates the consult request was received, the consult was initiated, and the consult was completed. Consultation requests were categorized as "stat," "today," or "as convenient." The completion of a consult is defined as the time at which the Consultation Note Template was placed in the patient's chart. The average time from request to completion was less than one day for both the "stat" and "today" categories, which comprised 19 percent and 50 percent of the total consults, respectively. The "as convenient" category, which comprised 31 percent of the total consults, had a median time from request to completion of two days. A more detailed analysis is provided in table 4.

During the study period, 76 weekly case conferences were held (taking into account occasional holidays and a summer hiatus in July and August), with an average attendance of 14 (range, 6 to 32), usually including three other trained clinical ethicists (who worked in other areas of the organization). Although on rare previous occasions a substantial number of attendees disagreed with the recommendation of the ethics consultant on the case—and in some instances, this prompted further discussion with the stakeholders to ensure an appropriate recommendation was made—during the study period the ethics consultant's conclusions were met with near-unanimous or greater agreement. Based on end-of-year CME-required surveys, 77 percent of those attending a weekly case conference said the case conference "definitely" identified the root ethical issue of a case. Only 3 percent said it definitely did not.

Case-based discussions with the ECS occurred prior to the study period (regarding responses to re-

TABLE 3. Ethics consultation outcome quality evaluation tools

	Evaluation tool							
		Post-consultation satisfaction survey (PCSS)						
Quality outcome	Weekly case conference	Q1	Q2	Q3	Q4*	Q5	Q6*	ECS discussion
Ethicality	X	X				X		X
Satisfaction		X	X	X	X	X	X	
Resolution		X	X			X		X
Education	X		X	X	X	X		X

*These questions also have relevance to process measures involving timeliness and accessibility of consultation.

quests for nonbeneficial treatment, reported elsewhere[25]) and following it (regarding institutional policy on abortion). No such discussions occurred during the study period.

Of the 451 PCSSs sent to involved staff, 184 were completed, a 40.8 percent response rate. Figure 3 depicts the distribution of health professionals involved in the consultations who responded to the survey. Outcome-related questions on the PCSSs generated 86 to 92 percent positive responses (that is, agreement or strong agreement) (see figure 4).

The two process-related questions that addressed the timeliness of the ECS and the Consultation Note Template report itself were rated negatively (that is, "disagreement" or "strong disagreement") by 9 percent and 4 percent of respondents, respectively, with the former representing the highest negative score of all of the questions on the survey. A summary of negative responses is presented in figure 5 as a Pareto diagram, commonly used to identify frequently occurring problems and to prioritize quality improvement efforts.[26]

Of the 184 responses to the PCSS, 95 (52 percent) also provided free-text input addressing the respondents' experiences with CEC. We identified four recurring themes. The first involved the timeliness and accessibility of the CEC. Many of these comments were positive. For example, one respondent wrote, "the ethics group as a whole sets an amazing example in regards to access, timeliness, and follow up. I really appreciate their services." Another wrote: "very glad consult requested [was] informative and timely in a very difficult situation." Of the 95 free-texts, 5 percent expressed negative sentiments on the timeliness of a consult, such as: "[I] feel strongly we do not get this started soon enough in most cases."

A second theme involved a clarification of the patient's goals for care. Many respondents' reports were positive regarding the role that CEC served in clarification of the patient's care goals. For example, a respondent wrote, after the patient's death, "I feel patient and family were aware of risks largely because of the ethics consult. Still bothered by case." Another wrote, "I was glad to finally be able to be present when an ethics consult was happening. It provided insight into the patient and family thought process that I was unaware of." One individual declared that the consultation "helped clarify the patient's goals and communicate with the patient and family those interventions that would help meet those goals and those that would not be productive to meet those goals."

Some responses were less positive, but the criticisms had to do with the need for the ethics consultation, rather than the consult itself. For example: "I personally did not feel that an ethics consult was needed in this case. . . . The ethics consult helped the [intensive care unit] staff feel better about the situation, however it did not have a large impact on the overall plan of care for this patient." Another wrote, "This consult was not really necessary as far as I could tell. . . . there was no ethical dilemma to solve, just some more preoperative workup was felt to be needed. . . ."

A third theme focused on the helpfulness of the CEC to staff and family members. Positive responses included, "I always have a phenomenal experience with the ethics team and appreciate their help in many different clinical situations," and, "Great help with a very difficult family. Great role model to the house staff and myself." There were no explicitly negative comments. The most critical reflected a measure of ambivalence: "I had little to do with [the]

TABLE 4. Analysis of timeliness in days, from the IQIF, for the period 2011 and 2012 ($N = 153$)

Urgency	Consultation phase	Mean	Median	Standard deviation
Stat ($n = 29$)	Request to initiation	0.0	0	0.2
	Initiation to completion	0.1	0	0.4
	Total time elapsed	0.2	0	0.5
Today ($n = 76$)	Request to initiation	0.1	0	0.2
	Initiation to completion	0.5	0	0.7
	Total time elapsed	0.6	0	0.8
As convenient ($n = 48$)	Request to initiation	2.6	1	11.9
	Initiation to completion	2.1	1	3.1
	Total time elapsed	4.7	2	12.2

process. [I] have not seen report directly. Outcome [was] helpful; [I] disagree, but helpful."

The fourth and final theme was appreciation for the professionalism and compassion of the ethics consultants. One representative comment was: "[It was] very helpful to have a perspective other than our own in a challenging case we had been working on for over a week; input valuable and appreciated." Another respondent wrote that the ethics consultants' "work in this institution is of the highest caliber in terms of professionalism, importance and basic human care. We need them very much. They make this Level I trauma center a better place to help heal human beings."

Overall, the respondents' comments provided greater insight into how clinical ethicists' participation helps at the bedside. The comments allowed the stakeholders to offer a narrative regarding their experiences, which were descriptive beyond the kind of responses allowed by the use of a Likert scale. The free-text comments highlighted the timeliness, accessibility, and professionalism of the ECS, the value respondents placed on the assistance they received in clarifying goals for patients and family members, and the support staff received in challenging situations.

Another component of the educational focus of the ECS was the weekly case conferences themselves. For the study period of 2011 to 2012, of the conference attendees who completed forms for CME credit, 97 percent indicated that the ECS met—or at least partially met—their educational needs; 87 percent indicated it would or at least partially change/improve their practice. These data are derived from 222 CME forms. Completion of the form was optional for attendees.

FIGURE 3. Health professions responding to PCSSs, 2011-2012.

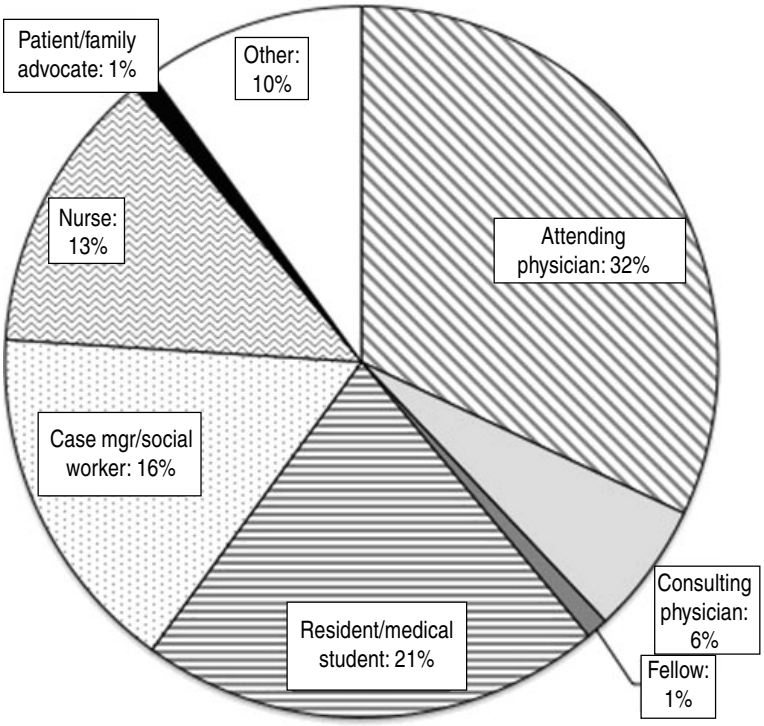
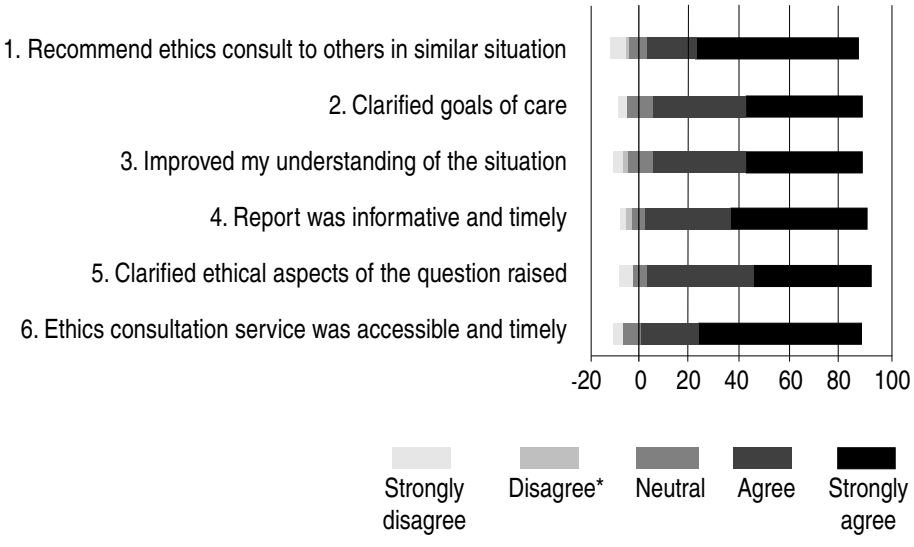


FIGURE 4. PCSS questions and responses.



* Respondents only selected option "Disagree" on items 1, 3, and 4.

DISCUSSION

Using process measures, we found very high adherence to the standards set forth in the *Core Competencies.* The overwhelming majority of Consultation Note Templates included all of the suggested information, analyzed the ethical dilemma, and made recommendations. The one area that generated the most negative feedback—both in terms of Likert-scaled questions and the free-text comments on the PCSS—had to do with timeliness and accessibility. This was surprising, given that timeliness was also one of the most frequently cited positive free-text comments, and, based on the information recorded in the IQIFs, the average time required to complete consults seemed very reasonable.

There are two possible reasons for the discrepancy. The first is that the consultation may have come "too late" for a patient due to a delay in requesting the consultation, rather than a tardy response to the request by the ECS. Multiple barriers have been noted by staff who request an ethics consultation,[27] and these may have delayed the request and thus—by extension—the completion of the consultation. One survey response highlights this possibility: the consultant "was very nice and very clear. However, the patient had already made her wishes clear and patient and family and Advance Directive were already clear and in agreement. Consult was really a duplication of service."

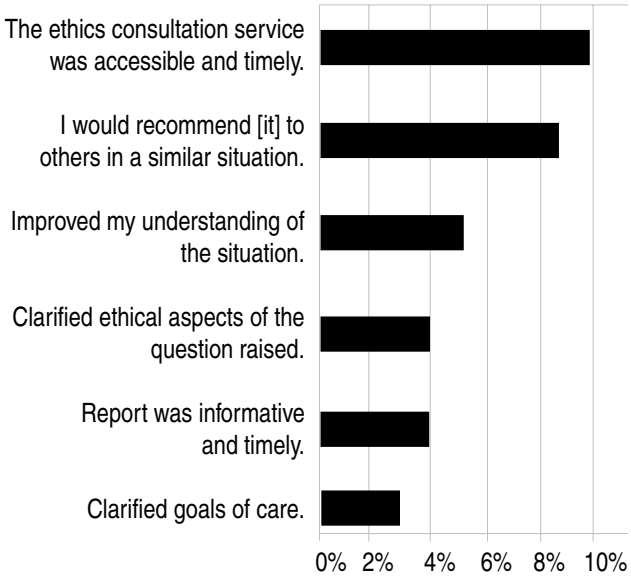
Another possible reason may be the steps required to complete an ethics consultation. Often it takes significant time and effort to contact stakeholders (for example family members, friends, healthcare professionals, nursing home staff, spiritual advisors, *et cetera*), which can affect the promptness of the resolution of an ethics consultation. The data gathered from IQIFs allow a more detailed analysis of the time elapsed by breaking it down into the period from request for a consult to its initiation, and from its initiation to its completion (see table 4). Notwithstanding "as convenient" consultation requests (which are not time sensitive), the time elapsed from the initiation of consults to their completion was substantially longer than that from request to initiation. This suggests that factors outside the control of the ECS may have led to delays in completion, in turn prompting negative feedback. One clinician responded,

> In retrospect, I missed an important step in the process. I should have alerted the attending/team that this consult was being asked. It led to an uncomfortable situation and ended in loss of respect and trust from the team. I still feel that the overall plan was not [the patient's] true wishes of returning home. The consult did not relay the communication as quickly as I thought it would. . . . I love what [the ethics team] does; the other teams seem to consider input more of an invasion of space.

As noted above, quality is not just about measurement, it is also about improvement. And while it may not be possible to acquire the information required for a consult any more quickly—as this depends on factors that are outside a consultant's control—the perception of a lack of timeliness can be addressed by more thorough charting. In response to the survey results noted here, the ECS has begun to include an "initial note" in the patient's chart for "stat" or "today" consults. This note simply indicates that the ECS is involved and a full consult is to follow, which we hope will allay any concerns of the staff related to timeliness and accessibility. Further, the inclusion of this initial note is now included in an updated version of the IQIF, providing another example of a quality feedback loop, in which the lessons learned are incorporated into the process, and then measured.

That questions related to "timeliness" generated both positive and negative responses on the PCSSs also suggests that the questions related to "timeliness" might have been poorly framed. For instance, a single question asks about "timeliness" and the "accessibility" of the ECS, which may create uncer-

FIGURE 5. Pareto diagram of negative survey responses.



tainty regarding which is being viewed positively (or negatively). In addition, the concept of "accessibility" is susceptible to multiple interpretations (including a lack of awareness of how to access the ECS, as well as potential pressure not to request a consult). The process of quality improvement, therefore, involves not only consultations, but also the ways in which quality is measured. As a result, some questions on the PCSS were modified to improve clarity. "Accessibility" is now assessed with its own question, and is specifically defined in terms of responsiveness of the ECS, once contacted.

Merely including certain process components is no guarantee of a quality outcome, however, and therefore we went further by measuring the elements of the outcomes of our consultations. Previous attempts to measure outcomes focused on indirect variables, such as patients' survival and length of stay, which are subject to confounding and also overlook the large proportion of ethics consultations that don't involve end-of-life decision making.[28] This study is the first to attempt to incorporate the four components of outcome quality that are set forth in the *Core Competencies*.

To measure something, one first must define it. This can prove challenging with concepts such as "ethicality," which has been defined as "the degree to which clinical practices conform to established ethics standards."[29] But which standards should be used? And who is qualified to assess the degree of conformity? This is especially problematic in clinical ethics, since experienced ethicists often disagree with each others' recommendations.[30]

We measured the "ethicality" of ethics consultations with two different tools. The first was the PCSS, in which the overwhelming majority of respondents said that consultations clarified ethical aspects of the question raised, and also that they would recommend ethics consultation to others in a similar situation. Each of these seems to be a reliable measure of the "ethicality" of a consultation.

On the other hand, these respondents were not trained ethicists, and perhaps rather than deeming a recommendation "ethical" on its own merit, respondents may have assumed that since an ethicist made the recommendation, the recommendation must have been ethical. This weakness is addressed through the weekly case conferences, which allow more in-depth discussion and critique. During the period studied, as many as five trained clinical ethicists attended a conference, and while this is not a guarantee of ethicality, it gives more credence to a claim of ethicality than the word of an individual consultant. That a consensus of the conference attendees (which, in addition to trained ethicists, included the staff who were involved in the consult that was being discussed and other members of the hospital and university community) supported the recommendations made during the study period, suggests that they were ethical.

Our second outcome metric is the satisfaction of stakeholders, which is touched on by nearly all of the questions in the PCSS, particularly the first ("I would recommend an ethics consult to others in a similar situation"). That only 8 percent of respondents disagreed with this statement is strong evidence of their satisfaction. That small minority may not have been dissatisfied with the quality of a consultation; rather, they may have felt that an ethics consult was not necessary in the situation, consistent with the negative feedback in the free-text comments related to the "need" for a consult. For example, one respondent wrote, "This consult was not really necessary as far as I could tell. It was I believe initiated by Anesthesia but there was no ethical dilemma to solve, just some more preoperative workup was felt to be needed from their end."

Resolution of the ethical conflict—the third component of outcome quality—was measured by the same questions as "ethicality," with the addition of a query regarding the clarification of the goals of care. Such clarification would at least further resolution, if not fully achieve it.

Education is the final measure. Information recorded in the PCSSs can be understood to indicate the educational component of the consultation process; we received very high scores on the questions related to informativeness and increased understanding. Further, some of the steps meant to measure quality served to assure quality. For instance, the weekly ethics case conferences measured ethicality and provided education to those who attended. This is indicated because nearly all of those attending the weekly ethics conferences noted that the conference met their educational needs—as did the ECS discussions of cases.

Not every respondent had a positive view of the ethics consultation. The few negative responses are amenable to multiple interpretations. For instance, if a respondent said that the consultation did not clarify an ethical aspect or goal of care, it might have been because he or she felt these were sufficiently clear prior to the consultation. For example, one respondent said that the patient's consult "was a communication problem more than an ethical question. An experienced communicator and facilitator was needed." Similarly, the consultation may not have improved a staff person's understanding of a

situation if the staff person already understood the situation rather well.

A less sanguine interpretation of the data is possible. Perhaps an ethical aspect to the question raised remained unidentified by the ethics consultant. The goals of care might have needed further clarification, despite the consultant's best efforts. Therein lies one of the greatest challenges in measuring (and improving) the quality of ethics consultation: valuable tools may still leave room for improvement. The methods presented here are first steps toward achieving a more robust program to measure and improve the quality of ethics consultation.

There also remains the question of whether all of the relevant stakeholders are being considered. The choice to survey only hospital staff was largely based on regulatory concerns (approval by an IRB) and logistical concerns (for example, readily available email addresses). Generally, though, the primary stakeholders in CECs are the patient and family, but expanding the PCSS to include them raises practical and emotional issues. From a practical standpoint, the email addresses of staff participants were readily accessible, whereas patients and families would have to be asked to provide this information. Given the emotionally charged nature of many ethical dilemmas, to ask patients and family members about their potential willingness to take part in a research study at the beginning of a conversation might lead to confusion as to the nature or purpose of the consultation. To inquire at the conclusion of a conversation might feel insensitive at best, or manipulative at worst, given the inherent vulnerability of many patients and family members.

Nevertheless, measurements of quality are inherently patient-centered, and measurements of the quality of CECs should ideally include patients and family members, as has been done in other studies.[31] The ECS is currently exploring ways to do this in an appropriate and efficient manner, as part of our ongoing quality-improvement program.

Our study has several limitations. One is that it involves one center with two ethicists, thus limiting generalizability. Different healthcare settings or those that use another model of CEC may experience different opportunities and challenges. Further, several of the measures (such as the questions on the PCSS) are amenable to multiple interpretations, and thus definitively identifying the reasons for a stakeholder's (dis-)satisfaction is not possible. In addition, the "Discussion" section of the Consultation Note Template (see figure 2) is skewed toward a principlist approach, limiting documentation and analysis of consequentialist or casuistic approaches.

The "Question Coding" block of the IQIF (see figure 1) is structured in a way that may bias toward focusing on shared decision making. Such a strategy may not be appropriate in all consults; for example, a physician-directed or patient-directed decision-making process may be more useful in some instances. The "Discussion Coding" block fails to distinguish the case-specific discussion itself and the theoretical arguments that may be used to justify the recommendations made. This balance of theory and its application is a component of the Orr-Shelton Model, but is absent from the IQIF. The IQIF also fails to include an option that considers counterarguments, which indicates the addition of an added layer of consideration. Finally, the "Recommendations/Conclusions" coding block does not clearly allow for multiple recommendations. Having identified these limitations through our quality improvement process, they are now being addressed.

CONCLUSION

Quality measurement and improvement is a priority in all healthcare endeavors, including CEC. Most attempts to measure the quality of ethics consultation focus on process, which, while easily measured, may not directly correlate with outcomes. Up to this point, only indirect measures have been used to measure the quality of CEC outcomes. This study represents the first attempt, to our knowledge, to measure not only the quality of a CEC process, but also its outcomes, based on the components identified in the *Core Competencies.* As such, our study is an important first step, open to refinement and expansion, on the road to optimizing and assuring the quality of ethics consultations.

NOTES

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