Published in final edited form as:

J Pediatr Gastroenterol Nutr. 2014 January ; 58(1): 34–37. doi:10.1097/MPG.0b013e3182a4e5c9.

Graduate Medical Education in Humanism and Professionalism: A Needs Assessment Survey of Pediatric Gastroenterology Fellows

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Abstract

The deterioration of humanism and professionalism during graduate medical training is an acknowledged concern, and programs are required to provide professionalism education for pediatric fellows. We conducted a needs assessment survey in a national sample of 138 first- and second-year gastroenterology fellows (82% response rate). Most believed that present humanism and professionalism education met their needs, but this education was largely informal (eg, role modeling). Areas for formal education desired by >70% included competing demands of clinical practice versus research, difficult doctor–patient relationships, depression/burnout, angry parents, medical errors, work–life balance, and the patient illness experience. These results may guide curricula to formalize humanism and professionalism education in pediatric gastroenterology fellowships.

Keywords

graduate medical education; humanism; pediatric gastroenterology fellowship education; professionalism

Humanism and professionalism are timeless virtues intrinsic to the profession of medicine. The Arnold P. Gold Foundation defines attributes of the humanistic physician: integrity, excellence, compassion, altruism, respect, empathy, and service (1). The American Board of Pediatrics (ABP) defines professionalism as the ability to demonstrate excellence, humanism, accountability, and altruism in addition to competence in clinical care, communication, and ethics (2). Teaching professionalism is mandated throughout training

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A portion of this study was presented in abstract form at the annual meeting of the Association of Pediatric Program Directors, Miami, FL, April 2011.

The authors report no conflicts of interest.

by the ABP as well as the Association of American Medical Colleges and the Accreditation Council of Graduate Medical Education (ACGME) (2–4).

In the ACGME's Next Accreditation System, educational milestones will be used to assess training programs. To maintain accreditation, programs must design curricula and measure outcomes to document trainee progress (5). In the newly adopted pediatric milestones, both humanism and professionalism are explicitly represented (3). According to the Common Program Requirements, resident well-being is another pivotal outcome, and programs must provide evidence of attention to resident support and well-being in the training environment (4).

Data from recent years indicate that specific curricular content for residency training in professionalism is lacking (6,7), and recent efforts have focused on formalizing humanism and professionalism education for pediatric residents (8); however, education in humanism and professionalism during fellowship training has received minimal attention. This omission is problematic, given that the fellowship experience inevitably creates challenges in this arena.

As during residency, fellows in pediatric gastroenterology must work to balance their personal and professional lives. In addition to clinical obligations, fellows have a requirement for scholarly productivity, and these concurrent responsibilities may come into conflict. In addition, the patient population cared for by pediatric gastroenterologists is increasingly chronically ill and medically complex. Fellows are expected to maintain therapeutic alliances with patients and their families and to recognize and navigate challenging patient relationships. Moreover, pediatric gastroenterology fellows must be able to deliver bad news, care for patients who may be dying, and cope with their own grief in the wake of patients' deaths. Finally, fellows are at risk for depression and burnout. Significant rates of burnout have been described in pediatric and internal medicine residents (9,10) as well as gastroenterology fellows and practicing gastroenterologists (11).

Given these challenges, we sought to describe present fellowship training in humanism and professionalism as reported by pediatric gastroenterology fellows. We conducted a national survey of pediatric gastroenterology fellows to determine satisfaction with current fellowship training in humanism and professionalism and to identify specific humanism and professionalism areas in which fellows desire more education.

METHODS

Survey Development

We developed a structured survey to characterize gastroenterology fellows' perceptions of present training in humanism and professionalism and assess interest in teaching on humanism and professionalism subtopics. The experience of 2 authors (K.C.G., J.C.K.) in implementing a humanism and professionalism curriculum for pediatric residents in the Boston Combined Residency in Pediatrics (Boston Children's Hospital and Boston Medical Center) initially guided the content areas, supplemented by a search of the academic literature on professionalism in graduate medical education. Experts in fellowship education

(A.D.W., A.M.L.) then reviewed the instrument and provided input on content validity. The survey was revised and administered for cognitive testing to a convenience sample of 3 fellows not eligible for study participation.

The survey included 33 multiple-choice items divided into 4 domains. The first domain focused on training quality in humanism and professionalism (“please rate the extent to which you agree with the following statements about your fellowship training”), with 5 response options: strongly agree, agree, neutral, disagree, and strongly disagree. The second domain investigated opinions regarding the potential benefit of formal fellowship education on a list of specific topics in humanism and professionalism (“please tell us how helpful it would be for you to receive formal teaching on the following issues”), with 4 response options: very helpful, helpful, a little helpful, and not helpful at all. The third domain examined fellow’s use of present learning strategies in humanism and professionalism (“please tell us how frequently the following strategies help you to develop your skills in humanism and professionalism”), with 4 response options: often, sometimes, rarely, or never. The final domain contained demographic questions. The complete survey is available upon request.

Survey Administration

Subjects were first- and second-year pediatric gastroenterology fellows from across the United States attending fellowship sessions at the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition conference. Second-year fellows convened in Scottsdale, AZ, in March 2010, and first-year fellows met in Ft Lauderdale, FL, in January 2011.

The survey was administered in paper format before a small-group case-based session on physician burnout. Surveys were anonymous and no identifying information was collected. Before completing the items, respondents were asked to read the ACGME’s definition of professionalism (12) and the Arnold P. Gold Foundation’s definition of humanism (1). Participation was voluntary and no incentives or remunerations were offered. The protocol was reviewed by the institutional review board at Boston Children’s Hospital and was determined to meet requirements for exemption from regulations for human subjects’ research.

Data Analysis

Statistical analyses were conducted using SAS version 9.2 (SAS Institute Inc, Cary, NC). The threshold for significance was set at an α level of 0.05 (2-tailed). Descriptive statistics were calculated as proportions of response options. For comparative tests, survey items were dichotomized as strongly agree/agree versus neutral/disagree/strongly disagree (domain 1); very helpful/helpful versus a little helpful/not helpful at all (domain 2); and often/sometimes versus rarely/never (domain 3). The χ^2 statistic was used to evaluate associations between each survey item and fellowship level or sex. Associations between perceptions of training quality in humanism and professionalism and undergraduate major were evaluated with the Fisher exact test, given the low prevalence of nonscience majors. Owing to the small number of independent variables, no adjustments for multiple comparisons were necessary.

RESULTS

Sample Characteristics

Overall, 138 fellows completed the survey. At the 2 North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition conferences, 83 first-year fellows completed the survey of 103 present (response rate 80.6%) and 55 second-year fellows completed the survey of 65 present (response rate 84.6%).

Table 1 summarizes respondent characteristics. Respondents were 55% female and 88% were 26 to 35 years old. The majority (89%) majored in science or mathematics during college; 22% had additional graduate degrees beyond the M.D. (eg, PhD, MS, MPH).

Perceptions of Fellowship Training in Humanism and Professionalism

Asked to report the extent to which the quality of current humanism and/or professionalism education in fellowship met their needs, 81% of fellows selected agree or strongly agree. Furthermore, 87% of respondents reported adequate attention to humanism and professionalism from both attending staff and fellowship directors. For the above items, 10% to 15% of respondents selected neutral, 3% to 4% selected disagree, and none reported strongly disagree.

Forty-eight percent of fellows answered that they “wished they had more opportunities to reflect about humanism/professionalism” (agree or strongly agree), whereas 32% selected neutral, 18% selected disagree, and 2% selected strongly disagree.

Present Methods of Humanism and Professionalism Skills Development

Figure 1 displays the frequency with which various strategies for humanism and professionalism education were judged to be helpful by fellows responding to the survey. More than 90% of respondents reported both role modeling and informal discussions with gastroenterology attending physicians as frequently helpful strategies (often or sometimes). Similarly, 80% to 90% frequently used role modeling or informal discussions with co-fellows as well as support from friends and family.

In contrast, fewer fellows reported formal educational efforts as key sources of skills development; 70% endorsed often or sometimes for fellow retreats, 57% for small group learning (eg, case-based discussions, support groups), 51% for lectures, and 42% for readings in the medical literature.

Desire for Formal Teaching on Humanism and Professionalism Topics

Asked how helpful it would be to receive more formal teaching on key challenges to humanism and professionalism, the largest number of respondents selected helpful or very helpful for competing demands of clinical practice and research (89%), difficult doctor–patient relationships (88%), and depression/burnout (81%). Between 70% and 80% of fellows indicated that formal teaching centered on angry parents (79%), medical errors (78%), work–life balance (72%), and patient illness experiences (71%) would be helpful or very helpful.

The remaining topics were still endorsed by at least half of the sample as helpful or very helpful: death and dying (63%), bereavement (60%), general principles of bioethics (57%), and cultural sensitivity (50%).

Demographic Comparisons

In χ^2 comparisons, there were no significant differences between first- and second-year fellows or between men and women for any items about humanism and professionalism training quality, current methods of skills development, or preferred formal teaching topics. In addition, perceptions of training quality in humanism and professionalism did not differ significantly between respondents reporting undergraduate majors in the sciences versus humanities/social sciences.

DISCUSSION

Although there is increasing literature describing medical student and resident curricula in humanism and professionalism, there is scant literature on such education in fellowship training (13). In this study, we surveyed a representative national sample of first- and second-year pediatric gastroenterology fellows to understand the present state of training in humanism and professionalism and explore specific areas for implementation of formal education.

Although 81% of fellows felt that their humanism and professionalism education in fellowship to date had met their needs, 48% nonetheless wished they had more opportunities to reflect about humanism and professionalism in medical practice. Moreover, the largest number of fellows (>90%) endorsed attending physician role modeling or informal discussion as frequently helpful strategies in humanism and professionalism education. Significantly fewer fellows reported small-group learning, retreats, or lectures as sources of learning in this area.

The paucity of formal professionalism curricula has been described in pediatric residency programs (6,7), but is less well-documented in fellowship training. The central role of informal methods for humanism and professionalism education raises concern because these sources are unscripted, ad hoc, and subject to the bias inherent in the “hidden curriculum” of medical education (14). Attending physicians have great influence on fellows’ professional development, and although this often has a positive effect, informal or hidden curriculum forces could lead trainees to adopt faculty members’ use of dehumanizing coping mechanisms.

Supplementing informal education with structured and formalized learning opportunities and evaluating the effect of these activities will address this issue and help fulfill ACGME and ABP requirements around professionalism education and the new milestones. Approaches to formalizing humanism and professionalism education previously described for pediatric residency training, such as reflective retreats (15) and small-group, case-based discussion curricula (8), should be rigorously applied to pediatric gastroenterology fellowship training. Other curricular solutions to foster professionalism may include small-group or didactic sessions at national fellows’ meeting or via online educational modules, as well as

experiential learning activities (eg, patient home or school visits). Finally, because all of the above curricular interventions require engagement of teaching faculty, interventions around faculty development in professionalism education are also important.

Our study results also highlight several key areas for specific educational focus, including the top 3 endorsed areas desired by >80% of respondents: depression and burnout, difficult patient relationships, and competing demands of clinical care versus research.

Depression and burnout, in particular, are critical issues; in a survey of 123 pediatric residents at 3 programs, 20% met criteria for depression and 74% met criteria for burnout (9). In a recent analysis of 16,394 internal medicine residents, 51.5% reported overall burnout (10). Moderate levels of burnout have also been documented in a large sample of practicing physicians from multiple specialties (16) and in a study of gastroenterology fellows and attending physicians (11). Factors such as physician burnout have been associated with medical errors (9) and decreased patient satisfaction with care (17). To help foster education in this important area, our case vignette on burnout for gastroenterology fellows, used in the national fellows' conferences following administration of our survey, is available upon reader request for use as a reflective trigger in small-group teaching. Quantitative assessment of burnout, for example, using the Maslach Burnout Inventory (18), may also be a useful adjunct to further educate fellows and support mental health and well-being.

Of note, topics for formal humanism and professionalism education least desired by fellows in this study, such as cultural competency and bioethics, are nonetheless important areas of focus. In addition to trainee opinion, curricular content must be guided by other stakeholders, including seasoned clinicians, medical educators, regulatory agencies, and our patients.

This study has several limitations. The study was cross-sectional and relied on fellows' self-report. Our results are therefore subject to recall, social desirability, and other biases. In the interest of survey brevity, items about present strategies for humanism and professionalism asked how frequently strategies were helpful. Therefore, data did not clarify whether a specific method of humanism and professionalism education was infrequently helpful because it was not available or because it was available but ineffective in supporting humanism and professionalism. Furthermore, because of the anonymous nature of the survey, we are not able to evaluate variation among fellowship programs.

In conclusion, humanism and professionalism are fundamental pursuits throughout a physician's career in medicine. Our national cohort of pediatric gastroenterology fellows, although generally satisfied with their fellowship programs' humanism and professionalism education, nonetheless describes this education as informal. Furthermore, fellows are interested in structured education in humanism and professionalism, and the majority desired explicit education on key subtopics. To ensure that all of the fellows have an opportunity to attain professional milestones in these critical areas, pediatric gastroenterology fellowship programs should implement formalized educational initiatives to foster education in humanism and professionalism.

Acknowledgments

K.C.G.'s work on this project was funded by a grant from the National Institute for Diabetes and Digestive and Kidney Diseases (K12-DK094721).

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FIGURE 1.

Bars represent percent respondents indicating that they currently use each resource “sometimes” or “often” to help them develop skills in humanism or professionalism.

TABLE 1

Respondent characteristics

Characteristic	No. observations	Mean $\pm$ SD or %
Pediatric gastroenterology fellowship level	138	
First year	83	60%
Second year	55	40%
Sex	138	
Male	63	46%
Female	75	54%
Present age, y	138	
26–30		30%
31–35		58%
36–40		10%
41–50		2%
College major	138	
Humanities or social science	15	11%
Science or mathematics	123	89%
Additional graduate degrees	140	
PhD		6%
MS		6%
MPH		5%
Other		5%

SD = standard deviation.