

tactfully with single patients and with the society as a whole.^{2,4}

In recent times, the relationship of physicians with society has become more complex and demanding, so that modern physicians need to add, to the characteristics of their predecessors (the *medicus amicus* and the *medicus gratus*), an enhanced communicational competence to treat effectively ever more informed and exacting patients.^{3,5}

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The Role of a Rural Medical School Campus in Developing a Sense of Place: The First 10 Years

To the Editor:

Most medical schools are now increasing class size and/or starting regional campuses to address the anticipated physician shortage. Maldistribution is also an issue, with only 9% of physicians practicing in rural areas where 20% of Americans live.¹ Previous studies have shown that rural upbringing and small-town medical training are associated with rural practice.²

These issues are particularly acute for Kentucky, since 80 of the 120 counties are considered underserved. In 1998, the rural Trover Campus (ULTC) began as a regional campus of the University of Louisville School of Medicine

(ULSOM) to address the need for rural physicians for Kentucky. The ULTC campus is in Madisonville, a town of 20,000 that is 150 miles southwest of Louisville. After completing their first 2 years at the Louisville campus, up to 12 students per year move to Madisonville to complete all of the required clinical rotations. The same didactics (by InteractiveTelevision), curriculum, and evaluation methods are used for both campuses. The first ULTC LCME review was in 2005, and the ULTC was listed as one of the 10 strengths of the ULSOM in their report.

The early years of the campus required the students to interview and make a choice to move during their M-2 year. Despite almost 25 M-2s showing interest each year, only two to six students per year made this choice, resulting in a careful survey of those who did and did not choose to move to help us understand the process. The results showed that it was social, not academic, issues that were responsible.³ The largest effect was the students' desire to be close to home, and the majority of the students were from central or eastern Kentucky, 200–300 miles from Madisonville. The unifying concept was one described earlier in Kentucky by the demographer Cutchin.⁴ He used the term "sense of place" to describe Kentuckians' ties to land and family as the matrix for their finding of meaning in rural practice.

With this concept as a guide, we set out to facilitate medical school admission for more students from western Kentucky. The effort began with a High School Rural Scholar program, then a college Trover Rural Scholar program, then summer programs in Madisonville before and after the M-1 year, and lastly a Rural Medicine Elective taught in Louisville during the academic year. We worked closely with the ULSOM Admissions Committee to help them accomplish their stated goal of admitting more rural

students. This resulted in 2006 in a ULTC dedicated admissions process. Students at the time of application to medical school now specify which of the two campuses they prefer for the clinical years, and those who indicate Madisonville subsequently interview both there and in Louisville. Trover staff are ex-officio members of the Admissions Committee and actively advocate for qualified rural applicants.

These efforts have resulted in the ULTC being oversubscribed, with 15–20 admitted students each year indicating preference for Madisonville, necessitating planning to increase class size. The goal of producing more primary care physicians and rural practitioners has also begun to be accomplished. During a time when the national average choosing family medicine was 8%–10%, 21 of 41 ULTC graduates (51%) made this choice, with 15 choosing another primary care residency, for a total of 88% in primary care. Of the graduates settled into practice, 16 of the 23 (70%) are in rural practice.

The first 10 years of these efforts show that establishing a regional campus in a very small town is possible and that attempts to get the right students in the right place can heighten their sense of place.

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New Research

Factors Associated With Refusal of Colonoscopy

To the Editor:

Colorectal cancer (CRC) is the third most common non-skin cancer in the United States and the second leading cause of cancer death. Despite well-established guidelines and multiple modalities for screening, national screening rates for colon cancer remain low. Screening may be inappropriate due to comorbid conditions, and many barriers to CRC screening have been identified. Some patients refuse colonoscopy, but the proportion refusing and reasons for doing so are unknown. The purpose of this study was to identify factors associated with patient refusal of colonoscopy in a community-based primary care practice network.

Methods

We conducted a retrospective, cross-sectional analysis at the University of Utah Community Clinics (UUC), a seven-practice, multi-specialty, primary care network located in and around Salt Lake City and linked by an electronic medical record (EMR). We included all patients at least age 50 with a UUC office visit between January 1, 2005, and December 31, 2005. The EMR included a health maintenance section where clinicians could document colonoscopy refusal. Subjects who had documented refusal but subsequently completed colonoscopy were not categorized as refusing. A logistic regression model including sociodemographic

and patient characteristics was used to identify factors associated with colonoscopy refusal.

Results

A total of 18,751 patients met inclusion criteria. The mean age was 63.8 years, and 57.8% were women. The median number of annual office visits per patient was 4.0; 6.2% had a family history of colorectal cancer, 61.5% had never smoked, 36.7% were overweight, and 36.8% were obese. Of patients, 48.6% had private insurance, 39.1% had Medicare, 5.6% had Medicaid, and the remaining 6.8% were uninsured.

A total of 737 (3.9%) patients had documented refusal of colonoscopy. Compared to patients that were current for screening, women (odds ratio [OR]=1.655, confidence interval [CI]=1.386–1.976), patients without a family history of CRC (OR=2.561, CI=1.763–3.720), and ever smokers (OR=1.719, CI=1.442–2.050) were more likely to refuse colonoscopy. Relative to patients ages 50–59, patients ages 70–79 (OR=1.371, CI= 1.041–1.806) and ages 80+ (OR=3.188, CI=2.344–4.335) were more likely to refuse. Patients with Medicaid (OR=3.187, 95% CI=2.317–4.384), the uninsured (OR=2.240, 95% CI=1.460–3.437) or Medicare (OR=1.263, 95% CI=0.991–1.609) were more likely to refuse colonoscopy than were patients with private health insurance.

Discussion

We identified female gender, history of smoking, increasing age, lack of family history of colorectal cancer, and lack of private health insurance as factors associated with patient refusal of colonoscopy. Understanding why patients refuse colonoscopy is essential in developing interventions and changing

practices to improve colorectal cancer screening rates.

Actual refusal rates are undoubtedly higher than we identified due to incomplete physician documentation and patient indirect refusal, that is, patients who do not explicitly refuse screening when offered by their clinician but subsequently choose not to schedule or complete the procedure.

This study is limited by use of the EMR and incomplete documentation. It may be that there are unique factors about either physicians or patients for whom documented refusal was completed that impact our findings.

It is our belief that understanding the systems factors and patient characteristics associated with colonoscopy refusal will allow for targeted intervention to improve colorectal cancer screening rates. Future research should prospectively examine interventions designed to improve colonoscopy acceptance.

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