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Half of Med School Graduates Beginning Surgical Residency Feel Unprepared

Written by
Skeptical Scalpel

A survey of 3,693 first- and second-year surgical residents found that 48.1% said medical school did not adequately prepare them for the rigors of surgical residency. Although the more overnight calls a student participated in, the more significantly likely they were to have felt adequately prepared for residency, only 51.6% reported taking call less than twice per month, as did 43.3% during sub-internships. However, one-third of those who took call more than four times per month still felt unprepared. Other factors limiting preparedness included rules and regulations limiting what students could do during clerkships and students acting as observers only when taking overnight call. Meanwhile, residents who felt well prepared for surgical training reported significantly fewer symptoms of emotional exhaustion, depersonalization, and burnout.

The paper, published in *JAMA Surgery*, surveyed residents who were training at hospitals that participated in the Flexibility in Duty Hour Requirements for Surgical Trainees (FIRST) trial.

A faculty member interview as part of the investigation noted that in the current culture, medical students were not allowed to write progress notes. A program director said, "I think that we've done a real disservice to the medical students at this point, giving them an improper perception of what residency means and what going into surgery means in general."

These findings did not surprise me. In one of my first blog posts in 2010, I wrote, "The third-year surgery rotation in medical school is not necessarily a good simulation of what it's like to be a surgical resident." The school I was with at the time had mandated that the students be allowed to go to bed at 11:00pm and only be awakened for major cases. I further explained this in a 2012 post, saying, "I believe a major cause [of attrition] is that medical students do not understand what surgical residency training is really like. In some schools, third-year [surgical] clerkships are as short as 4 to 6 weeks, and part of that time may be spent on clinic or subspecialty rotations." I also pointed out that many schools limited the amount of overnight call for students to once per week, resulting in "an unrealistic picture of what a surgical residency is like."

The authors of the *JAMA Surgery* paper concluded, "Adequate exposure to the necessary realities of surgical training and independent practice, particularly overnight call during the medical school clerkship, *may* [my emphasis] contribute to improved preparedness, lower attrition, and lower rates of burnout in general surgery residency."

I hope the paper is widely read by medical and surgical educators.

New research was presented at ACAAI 2020, the virtual American College of Allergy, Asthma & Immunology Annual Scientific Meeting, from November 13-15. The features below highlight some of the studies emerging from the conference.

COVID-19 Outcomes Similar With or Without Allergies

With many in the field of allergy and immunology focusing attention during the COVID-19 pandemic on how patients with allergies and asthma may be affected if they become infected with the virus, researchers examined hospital data to determine whether patients with allergic conditions experience more severe COVID-19-related outcomes than those without such conditions. "We examined the charts of 275 patients admitted to the hospital who tested positive for the SARS-CoV-2 virus for any history of allergic disease," Dylan Timberlake, MD, lead author of the study, said in a press release. "Over the 2-month period when we examined the charts, we found the severity of disease didn't seem to differ between COVID-19 patients with allergies, versus COVID-19 patients without allergies." Disease severity was determined by such factors as ICU admission, length of stay, need for supplemental oxygen, and intubation rate. Although more patients with allergies had COPD (39% vs 17%)—a known risk factor for severe COVID-19 outcomes—the study team found a statistical trend suggesting possible protection in patients with pre-existing allergic disease, but not asthma, after controlling for the presence of COPD and its association with more severe COVID-related illness.

With Telemedicine, No-Show Asthma Visits Significantly Reduced During COVID-19

With the COVID-19 pandemic resulting in many patients using telemedicine to attend regular doctor visits, study investigators compared show rates for children with asthma across 4 months during the pandemic with the same period in 2019. "It would be normal to expect parents to be hesitant to bring kids into an asthma checkup during a pandemic," Kenny Kwong, MD, study author, said in a press release. "We run the LAC+USC Breathmobile program (an urban school-based mobile asthma program) in Los Angeles and have regular asthma patients we work with. The pandemic in 2020 resulted in closure of most Los Angeles schools, and face-to-face visits were converted to telemedicine visits. We found that not only did kids show up for appointments, but their show rates were also significantly higher than during the same period in 2019." During the telemedicine period, more than 90% of patients reported well-controlled asthma, comparable with pre-COVID rates. Breathmobile staff also reported a 32% to 62% increase in the time spent with each patient while on telemedicine visits when compared with in-person visits.

QOL Disproportionately Affected by Food Allergies in Asian Americans

An examination of 6,829 questionnaires completed by the parents of children with food allergies at Cincinnati Children's Hospital Medical Center as part of a retrospective chart review expands upon previous studies showing that food allergies negatively affect quality of life (QOL). Questionnaires were scored from 0-100, with higher scores corresponding with worse QOL. "Based on our questionnaire, Asian parents of children with food allergy living in the US had a mean score of 50.5, indicating a 'fairly' negative impact on quality of life, which was significantly higher than white and Black parents," said lead study author Christine Rubeiz, MD, in a press release. "White and Black parents had mean scores of 40.4 and 40.9, respectively, corresponding closer to the food allergy having 'a little bit' of a negative impact on quality of life." Adding to Dr. Rubeiz's sentiments, senior study author, Amal Assa'ad, MD, said, "Our study showed Asian parents had significantly higher scores (worse QOL) in both higher and lower socioeconomic groups. "Most studies of Asian children have been done in Asia, where the prevalence of food allergy is 3% to 8%. Some estimates of food allergy in the general US population report a similar prevalence—about 8%. Asian families with food allergy appear to have worse food allergy-related quality of life [FAQOL] compared [with] other races, according to our research. This highlights the need for further studies on the impact of food allergy on Asian families, who may be an underrecognized population." Dr. Rubeiz added, "We found other significant racial disparities in FAQOL scores, particularly with Black and Hispanic patients. Within the Medicaid population, we found that Black and Hispanic patients and parents had significantly higher scores (worse quality of life) compared [with] white patients and parents. Cultural food preferences and the financial burden of food allergy may be a factor in this finding."

Children With Food Allergies & Their Parents Are Often Bullied

In prior research, parents of children with food allergies have reported that their children are often bullied by classmates, as well as parents of other children and teachers. Study investigators who conducted a survey of children aged 4-17 found that nearly one in five parents of children with food allergies are also the targets of bullying from multiple sources. "We know children are often bullied about their food allergies," said Dannielle Brown, MHS, lead author of the study, in a press release. "What we weren't aware of was how many parents are bullied by multiple sources. Of the 252 parents or guardians we surveyed, more than 17% said they had been bullied." Many parents/guardians said it was helpful to take steps to end the bullying, with 13% saying they spoke with their child, 7% with the offended or the offender's parent, 17% with a teacher, and 15% with a principal or school administrator. Nearly half who took such actions said doing so was helpful. "No child or their parent should be bullied because of their food allergies," said Ruchi Gupta, MD, MPH, co-author of the study, in a press release. "Having a food allergy puts tremendous stress on the entire family and any form of bullying makes life that much harder."

Immune System Shaped into Adolescence by Prenatal Dog Ownership

Prior research indicates an association between prenatal pet exposure and immunoglobulin E (IgE) trajectory through age 2. To determine if this association persists during ages 10-14, researchers assessed data on a cohort of 1,193 mother-child pairs in southeast Michigan. The study team found that the area under the curve for IgE levels during ages 10-14 was 28.8% lower in children with prenatal pet exposure when compared with those with no such exposure. Dog ownership, associated with a 26.7% lower IgE trajectory, was the main driver of this association, with cat ownership having no significant association with IgE trajectory. The findings support the "hygiene hypothesis," said Jay Portnoy, MD—who was not involved in the study, in a statement—which is based on dogs being particular carriers of bacteria from outside into the home and resulting in a potential influence on a child's microbiome early in development. The hypothesis is supported by previous studies suggesting an association between dog ownership and reduced risk of eczema in children. Race/Ethnicity and delivery method affected the association between pet exposure and IgE reductions, with children of African-American mothers experiencing an 11.3% reduction versus a 33.6% reduction in other races and ethnicities, and children delivered via cesarean delivery experiencing a 46.2% lower IgE traject-ory versus an 18.1% lower trajectory in children delivered vaginally.

Q&A WITH DR. MEDLAW

Professional Vs. Ordinary Negligence

A patient fell off my examining table. She had felt a bit woozy when I was removing her sutures, so I stopped to give her a breather and stepped out to take a phone call. When I came back, she was on the floor, shaken and upset but not hurt other than a large bruise. She is suing me pro se; I guess she was not able to get a lawyer because she did not have serious damages. She is claiming that I was negligent for leaving her alone. In my state, malpractice claims first require a doctor to attest that the case has merit. My patient did not do this. Can I get the case dismissed?

Not every negligence case against a doctor, or based on an event in a doctor's office, is a malpractice action. Malpractice is professional negligence, a tort that can only occur in the setting of the practice of a profession, in this case medicine. Doctors can, however, also be subject to claims of ordinary negligence.

Claims of ordinary negligence raise issues within the common knowledge and experience of anyone who might sit on a jury or of any judge who might hear the case in a bench trial. Claims of medical negligence raise questions involving medical judgment beyond the common knowledge and experience of non-physicians.

She is probably suing for ordinary negligence, precisely because it is an easier claim to bring. She would say it is within anyone's knowledge that a woozy person on an elevated table without side guards is at risk of falling and should not be left alone.

However, what would be ordinary negligence if it happened in another setting will, if it is part and parcel of the rendering of medical diagnosis or treatment, be legally viewed under the scope of malpractice, because the professional obligation to act non-negligently extends to all aspects of the care, including a safe physical setting. The test is whether the negligent act occurred in the rendering of services for which the healthcare provider is licensed. This is separate from the duty to the patient as just a visitor to the office who is owed a duty of care against dangerous conditions on the premises the doctor controls, just as is everyone else.

In your case, the patient was already in the midst of her appointment and was woozy because you were removing her sutures, bringing it fully into the ambit of medical care, which would then include maintaining her safety on the high table. You can, therefore, move to have the case dismissed. She would have to bring a new case for malpractice—or, since you actually were negligent in leaving her alone while woozy on the table but she was not seriously harmed, you can offer a reasonable settlement.

This article was written by Dr. Medlaw, a physician and medical malpractice attorney. It originally appeared on SERMO, which retains all rights to it.

In Case You Missed It

Considerable Racial & Ethnic Disparities in Childhood Atopic Dermatitis

Jonathan Silverberg, MD, PhD, of the George Washington University School of Medicine and Health Sciences in Washington, DC, and colleagues identified considerable racial and ethnic disparities in childhood atopic dermatitis. The authors evaluated data from multiple studies that examined health outcomes in US children and adults, including US population-based cross-sectional surveys (National Survey of Children's Health, Atopic Dermatitis in America study, Medical Expenditure Survey, National Health Interview Survey), longitudinal surveys (The Fragile Families and Child Wellbeing Study), nationwide studies of US hospitalizations (Nationwide Inpatient Sample), and emergency department visits (Nationwide Emergency Department Sample). The researchers found that compared with White children, Black children in the United States had higher rates of atopic dermatitis, more persistent childhood atopic dermatitis, and more nights of sleep loss. In addition, Black and Hispanic children had more severe atopic dermatitis and poorer overall health than White children. "Black and Hispanic children with atopic dermatitis had lower household income, were more likely to be uninsured or underinsured, and reported insufficient time during the patient-physician encounter," Dr. Silverberg said. "Lower income and lack of private insurance do not account for all of the racial/ethnic disparities observed in atopic dermatitis. Multiple interventions are needed to eliminate these disparities."

Antibiotics Before Age 2 May Up Odds for Allergies, Obesity

Kids given antibiotics before their second birthday may have a heightened risk for chronic conditions like allergies and obesity, a new study suggests. The drugs' effect on the microbiome might play a role in a baby's future health, Mayo Clinic researchers said. The study analyzed data from more than 14,500 children. About 70% of these children were given antibiotics before age 2. Those kids were more likely to have multiple illnesses or conditions later in childhood, the study found. Early use of antibiotics increased the risk of asthma, allergic rhinitis, weight issues and obesity, food allergies, attention-deficit hyperactivity disorder, celiac disease, and atopic dermatitis. Types and frequency of illness depended on age, type of antibiotic, dose, and number of doses. There also were differences between boys and girls. Although antibiotics may only have a passing effect on the microbiome, they might also have long-term consequences, the clinic team theorized. However, the researchers noted the study cannot show a direct cause-and-effect relationship. "We want to emphasize that this study shows association, not causation of these conditions," said Nathan LeBrasseur, a researcher at Mayo's Kogod Center on Aging. "These findings offer the opportunity to target future research to determine more reliable and safer approaches to timing, dosing and types of antibiotics for children in this age group." Although data show an increase in some of the childhood conditions found in the study, experts are not sure why. Other than the issue of drug-resistant bacteria, antibiotics have been presumed safe by most pediatricians, the researchers note.