making an elusive diagnosis or the ability to help patients cope with illness or injury; others are motivated by the discovery of new epidemiologic links that can benefit whole populations of ill people. Microbiologist Hans Zinsser said, "Infectious disease is one of the few genuine adventures left in the world. The dragons are all dead and the lance grows rusty in the chimney corner."[5] He could have been describing any clinical subspecialty. We haven't lost medicine; its best features have merely been clouded by false assumptions that obscure alternative paths to our ideals. I think we need uninterrupted time to reflect, to converse, and to grapple with the downsides of the unrestrained embrace of technology. Such steps could be the beginning of a journey to reclaim our profession and recapture our most treasured relationships.

Disclosure forms provided by the author are available at NEJM.org.

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DOI: 10.1056/NEJMp1810688

Navigating Loneliness in the Era of Virtual Care

Ameya Kulkarni, M.D.

He was younger than I was when we diagnosed the disease that would kill him. Even as the words came out — "There is nothing more we can do" — I felt drained by the weight of his life cut short and the guilt of my own good health. I sought refuge in the residents' lounge. Amid the cacophony of clicking keyboards came the support of my colleagues, offering that blend of empathy and distraction that only the trenches of residency can produce. The lounge promised rehabilitation. The achievement of personal milestones was amplified by collective experience, and shared pain seemed to wound less. At times like this, sharing the pain seemed to be a necessary tactic to survive. Whether it was the first time we made a mistake or saw medicine's limits crystallized in a patient we could do nothing else for, there was always a resident in the lounge who could commiserate, provide on-the-spot therapy, or just listen.

Post-residency practice, on the other hand, can feel much lonelier. Midnights in the ED are solitary affairs. Painful moments are no longer eased by shared experience. The burden of losing a patient, once made lighter by the shoulders of co-residents, now lies heavier on a single set of shoulders. And virtual care, which has connected us to our patients in more natural ways than ever before, can also leave us lonely, spending hours one on one with our computer. The most commonly cited reasons for burnout — increased paperwork, more quality metrics, and less time with patients[1] — reflect physicians' need for meaningful interaction. Doctors, for the most part, are social creatures. So the transition away from routine interaction with patients and colleagues and toward more isolated and individual activities has contributed to loneliness and resulting burnout.[2]

But what can be done? The realities of modern health care are such that many current drivers of loneliness are not likely to disappear anytime soon. Virtual care is an important attribute of the medical village in the 21st century — unlike periodic appointments, it connects patients and their care teams in ways more in sync with the dynamic needs of managing a clinical condition. The model of a team of doctors on night float, a great support system in what might otherwise be the most isolating of moments, cannot feasibly exist outside the training setting. Moreover, the draws on physicians' time also change as we move out of training and into practice. My primary social circle surrounds

my children now, not necessarily the team of doctors I work with.

All this means that addressing physicians' loneliness in the 21st century requires finding innovative ways to interact with each other. Interestingly, social media has been a powerful tool in this regard. About 2 years ago, I became more active on Twitter, right around the time that cardiologists from around the world began tweeting about new techniques, new data, and new challenges. Some of these cardiologists were prominent in our field, but others were practicing physicians who had figured out novel solutions to their everyday problems. Initially, the chatter surrounded the mechanics of care. But as in the resident lounge of the past, the power of shared experience brought us together in surprising ways. One group (#dropandgiveme20) provided encouragement for physicians interested in exercise. Another offered words of support at moments, especially during the holidays, when the demands of our jobs often meant missing out on family celebrations. Still other groups shared stories, which led to surprising connections. In one case, a thread by a prominent cardiologist about his visit to his parents' hometown in India led to connections with some colleagues who'd grown up in the same town in different generations.

But though they may be a step in the right direction, such virtual support groups are not enough. Meaningful change requires much more. At the Mid-Atlantic Permanente Medical Group, where I work, we have made it a part of our wellness mission to battle loneliness. As part of this effort, we have been using both traditional and new methods to connect with one another. We started by creating opportunities for doctors to spend time together outside work engaging in non–work-related activities. Since our group is large and our interests are varied, we cast a wide net. By spanning a range from sporting events to happy hours to activity-based events (musical jam sessions, golf outings, art classes, cooking sessions with local celebrity chefs, and subsidized playgroups for young families), we've tried to find a way to reach everyone.

An audio interview with Dr. Kulkarni is available at NEJM.org

Because our medical group is a geographically dispersed, multispecialty practice, we've also tried newer methods of connecting. In a program called "This Is Me," each week one of our physicians writes a brief autobiographical essay that is emailed to our whole group. The only rules are that the story has to be about the physician and cannot be about the physician's day job. So far, we have learned about challenging parenting experiences, passions about motorbikes, and learning medicine in wartime. Key to the program is that it uses simple tools we already have. In another initiative, our midnight snack program, a small group of physicians volunteers to bring snacks once a month to physicians working overnight shifts. Though the snacks are a small gesture, the chance to speak with a colleague in the middle of a long night can feel like an oasis in the desert. Still another program, dubbed the Pebbles Project, creates a structure and support for small groups of physicians who are interested in discussing and solving small operational problems in their practice — the "pebbles in the shoes."

We have also tried to help our doctors once again share the joy of caring for patients by creating opportunities to discuss their stories of clinical care. These sessions, called "Finding Meaning in Medicine," bring physicians together to explore topics that underlie the practice of medicine but are not often explicitly discussed — concepts like compassion, awe, and loss. By offering these sessions both away from the office and in our medical centers, we overcome some of our geographic challenges and allow physicians to interact in whatever setting feels most comfortable. Though some of the conversations involve the sharing of pain, many remind us of the best parts of our job — the opportunities to save lives, relieve pain, and share vulnerability.

Taken individually, these interventions are all small steps toward deeper connections among physicians. But together, they may gradually build a framework for connecting every physician in our practice to at least one colleague. We have no illusions about the challenges involved in achieving this goal. But the burdens of a physician's job can be heavy; often we are the last line of defense between life and death. We owe it to our colleagues, and our profession, to insist that no one bear these burdens alone. After all, though the camaraderie of residency can feel like a distant memory, old truths still hold: the act of healing is more joyful when it's communal, and shared pain wounds less.

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DOI: 10.1056/NEJMp1813713

Beyond Nudges — When Improving Health Calls for Greater Assertiveness

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In late 2014 and early 2015 in California, 159 people contracted measles. The outbreak was due in large part to the state's low measles vaccination rate, raising the question of how best to change behaviors that have public health consequences. In recent years, health care leaders have increasingly turned to "nudges" to influence health-related behaviors. A nudge "alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives."[1] Examples of nudges include setting default options in physicians' ordering systems to increase prescribing of generic medications or listing health insurance plan choices in descending order of quality rating to encourage beneficiaries to choose higher-quality plans.

Nudges are popular because they offer new ways to address persistently problematic behaviors, including those that traditional economic interventions have failed to influence. Proponents of nudging reason that if standard incentive-based approaches for changing behavior — such as pay-for-performance schemes — have failed, then perhaps a different approach will have more success. Nudges are also favored for being relatively hands-off, preserving choice rather than forcing people to behave in a specific manner.[2]

The state of California could have addressed its measles outbreak with nudges by creating public service announcements to influence people's vaccination decisions, for example, or by offering lottery tickets to parents who vaccinate their children, to leverage the power of intermittent reinforcement. But instead of relying on nudges, California stiffened vaccination requirements, eliminated personal-belief exemptions, and mandated vaccination for children enrolling in school. As a result, vaccination rates soared.

We are enthusiastic about many nudges used in health care and believe that they deserve to be widely implemented. But harmful health and health care behaviors often arise in circumstances that give us reasons to go beyond nudging.

First, some health-related behaviors harm not only the people engaging in them but also other members of the public, creating what economists call externalities. For example, secondhand smoke from cigarettes affects the health of nonsmokers. If nudges fail to substantially reduce engagement in behaviors that create harmful externalities, we believe that health care leaders should consider interventions that go beyond nudging. What's more, in the setting of externalities, one of the primary advantages of nudges — the fact that they preserve people's freedom of choice — is no longer compelling because the external parties being harmed by the behaviors in question have already had their own freedom undermined.

Second, some health care choices are not solely in the hands of patients. For example, rates of unnecessary tests and treatments vary among providers in ways that are not explained by patient factors, which suggests that physicians are the ones making many of these potentially harmful choices. Similarly, some health care choices are made by caregivers — toddlers don't make vaccination decisions; their parents do. When harmful choices are being made by people other than those who would be harmed by such choices, we could take a more assertive approach to influencing decision making.

Third, financial interests often influence health care decisions in ways that harm patients or society more broadly. Marketing by pharmaceutical companies may affect prescribing decisions by physicians or requests by patients for specific therapies. In other