

WELL



ANTHONY GEATHERS FOR THE NEW YORK TIMES

Taryn Toomey, who created the Class, a rigorous mind-body workout in New York City, likes to start her day with a meditation session of at least 20 minutes in her office.

Being still to get active

Fitness

GRETCHEN REYNOLDS

For many of us, the shorter, chillier days of autumn can dampen enthusiasm for exercise. But a new study suggests that some simple techniques might shore up our commitment to being physically active as the seasons change. One of them is to learn to meditate.

Among exercise scientists and enthusiasts, November is recognized as a Rubicon. Many committed, experienced exercisers will continue to be active during this month and the remainder of the winter.

But others' willingness can waver at this time of year, and they become more sedentary.

A study of exercise behavior published earlier this year found that on average, people moved about 11 fewer minutes per day in winter than in summer.

For some people, 11 minutes represents much of their daily activity time, so this drop-off is substantial and worrisome.

But little research has delved into how to combat the seasonal drift toward inactivity.

So for the new study, which was published in September in *Medicine &*

Science in Sports & Exercise, researchers at the University of Wisconsin-Madison, Iowa State University and other institutions set out to examine different ways to inspire people to keep moving as a Midwestern winter approached.

For a variety of reasons, they focused on having people start a regular, structured exercise routine or learn mindfulness meditation. The first option, using workouts to combat inactivity, makes intuitive sense. But mindfulness, which is primarily a mental exercise, might seem a more unlikely way to motivate people to move.

The researchers, however, who already were studying the effects of exercise and mindfulness on the risk for colds, suspected that both programs might alter the way people felt about their bodies, which could affect their activity throughout the year.

To find out, they recruited 49 healthy but inactive men and women who had never meditated and, beginning in late summer, asked each to wear an activity monitor for a week. The monitors tracked how much the men and women walked and otherwise moved throughout the day.

Then they randomly assigned the volunteers to start exercising or meditating or to continue with their normal lives as a control group.

The exercisers' weekly program consisted of unsupervised walking or jogging, with the aim of working out

for at least 20 minutes a day and ideally for 40 minutes or more. Once a week they also visited the university for several hours of instruction and a group workout.

The mindfulness group was learning to meditate, following a standard mindfulness instruction program that focuses on attending to the present moment and checking how your body feels. The people in this group practiced body scans and mindful walking, in addition to the usual quiet, seated meditations. Like those in the exercise group, they attended a weekly session on campus, but most of their meditations were completed at home.

Both of these programs lasted for two months, which, in this study, took people through September and October and into early November.

Then, with winter on the horizon, the volunteers, including those in the control group, wore an activity monitor for another week. None of them knew that the study's aim was to track their activities; they thought it was looking at colds.

But the two programs did seem to have had an influence, according to data from the monitors. Most noticeably, the men and the women in the control group were much less active now, in the late fall, than they had been in the summer, averaging almost 18 fewer minutes a day of walking and otherwise moving about.

But the men and women in the other two groups had not become quite so

inactive, although they were no longer being asked to exercise or meditate. They were moving a bit less than they had been in the summertime, but only by about six minutes a day.

These results surprised the researchers, said Jacob Meyer, an assistant professor of kinesiology at Iowa State, who conducted the study with Bruce Barrett at Wisconsin and other colleagues. They had expected the exercise program to get people familiar with and interested in the idea of moving, he said. "But we did not expect the mindfulness training to have the effect that it had," he said.

How an introduction to meditation prodded people to stay relatively active as winter approached is not clear, he said.

The researchers cannot say from this study why the exercise program motivated people to remain active in autumn or why it was not more effective than learning to meditate.

But Dr. Meyer suspects that each program may have increased people's sense of integration with their bodies and nudged them to be somewhat more aware of whether, how and when they moved.

He and his colleagues hope larger future studies will help them tease out which aspects of each program were most helpful and whether combining exercise and mindfulness might be more effective at keeping people active than either approach alone, even as winter sets in.

Hold the medicine: It won't stop the cough

Side effects in children may be harmful, doctors say: Try honey, instead

FERRI KLASS, M.D.

Parents are often disappointed or even a little bit upset when I tell them there's no medicine to help their coughing, sneezing, drippy-nosed children feel better. There's nothing that works, I say, and medicines can have bad side effects. We don't recommend any of the cough and cold medications for children under 6.

But parents are intimately aware of just how miserable a cough and a runny nose and congestion can make a small child feel, causing cranky days and disruptive nights.

And often there is something both comforting and familiar about over-the-counter medicines, which figure in many parents' memories of their own sick days way back when. "They all took these medications themselves," said Dr. Ian Paul, a professor of pediatrics at the Penn State College of Medicine. "There's a comfort in knowing that."

In a new review in the medical journal *BMJ*, researchers considered evidence on whether a variety of over-the-counter cough and cold medicines are effective for treating runny nose, congestion and sneezing, as well as the question of whether they can do harm.

"Parents are always worried that something bad is happening and they have to do something," said Dr. Mieke van Driel, who is a professor of general practice and head of the primary care clinical unit at the University of Queensland in Australia and was the first author on the study. As a primary care physician herself, she said, she is well aware of the urgency that parents feel to find something that will relieve their children's distress.

"Unfortunately, our research shows there's very little evidence," she said, and especially for children. "We were actually quite amazed by how little there was — hardly anything to be enthusiastic about."

In addition to understanding that there is no evidence that these medications help, Dr. van Driel said, parents need to understand that there are clear risks in using them in young children. The United States Food and Drug Administration originally recommended against any over-the-counter cough and cold preparations for children under 2; the American Academy of Pediatrics has extended the recommendation to apply to all children up to 6. And after manufacturers voluntarily withdrew products marketed for infants, and changed labels to recommend against use in young children, researchers found a drop in the number of children taken to emergency rooms for problems with these medicines, which in past studies have included hallucinations, cardiac arrhythmias and depressed level of consciousness.

When it comes to the sniffles or the cough associated with the common cold, "these symptoms are self-limited," said Dr. Shonna Yin, an associate professor of pediatrics and population health at the New York University School of Medicine. Parents can help comfort their children without giving medications, she said, offering plenty of fluids to keep children well hydrated, and honey for a cough in children over a year old (no honey for babies under a year because of the risk of botulism). Other measures may include ibuprofen or acetaminophen for fever and saline nose

drops for congestion. "Our 2007 study was the first to show that honey was more effective than dextromethorphan" — a common cough suppressant — "or no treatment," said Dr. Paul.

Since then, other studies have shown that honey does relieve cough, and the accompanying sleep disturbance. Organic agave nectar, on the other hand, had only a placebo effect, said Dr. Paul, who noted that over the past 10 years, he has consulted for many of the manufacturers of these medications and carried out studies funded by them.

"The bottom line," he said, "is that for all of the over-the-counter cough and cold medications, there is limited to no evidence of efficacy for any cold symptoms, particularly in those under 6 years."

Studies have not shown that cough suppressants help children cough less or that antihistamines and decongestants help them sleep better. Medicines that can help a child with a runny nose from seasonal allergies won't help that same child when it's a cold virus making the nose drip; the underlying mechanisms are different.

Even for older children and adolescents, Dr. Paul said, the evidence of efficacy is not strong for most of the ingredients in cough and cold medications, and there is always the danger of side effects, particularly when the medicines are taken in too-large doses, which can happen because there are so many different preparations, with so many different combinations of drugs.

But watch for symptoms beyond the common cold.

Dr. Yin is working on a project funded by the Food and Drug Administration to improve the labeling and dosing instructions on children's cough and cold medications; so far, she said, the research has shown that parents in the study population are confused about the intended age ranges of the medicines, about the active ingredients, and about dosing. Many of these preparations contain several different drugs, including a cough suppressant, a decongestant, an antihistamine and a medicine for pain and fever.

"In my own practice, I reassure them, I check the child, I make sure I've covered the ears, the lungs, the throat," Dr. van Driel said. "I reassure the parent: This is a cold, a cold is a self-limiting disease, we have capable immune systems that will take care of it, it will take about a week."

And of course, we always tell parents what to watch out for, symptoms that might suggest that something more than a cold is going on. Any respiratory difficulty in a child has to be taken seriously, so a baby who is breathing too fast or a child who is working harder than normal to breathe should be checked out. High fevers are concerning, as are any of the signs of influenza, such as shaking, chills and body aches; influenza in children can be treated with antiviral drugs — and prevented with flu shots.

Children with the "common cold," on the other hand, should generally be able to eat and drink, should be alert and able to play — or at least, susceptible to distraction. "It's unfortunate because the illnesses are so common, young children and babies suffer, parents miss work — but we're no further along than we were 60 years ago," Dr. Paul said. "We still don't have good therapeutics for the common cold."

Everything now gets a diagnosis. That's not always a good thing.

Millions of Americans take risky medications for questionable sicknesses

BY DHRUV KHULLAR, M.D.

I recently cared for a hairdresser who had gone through a year of vague and varied symptoms. What started as a few unpleasant aches soon became debilitating pain throughout her body. A heavy fatigue settled into her bones: Holding scissors or sweeping the floor became too much. She slept fitfully; her memory flagged. Frustrated by many symptoms and few answers, she grew anxious and depressed.

Our medical team, after a battery of unrevealing tests, settled on a diagnosis of fibromyalgia. Tears welled in her eyes as I explained the diagnosis, and I worried I'd been too brusque. But these were tears of relief, she said, not because the symptoms had ceased, but because she finally had an answer, a name for her pain.

Those who suffer without a clear understanding of its cause experience a unique form of torment. There is great power in diagnosis: It can be comforting, terrifying and, sometimes, even healing.

There's evidence, for example, that patients who receive a diagnosis of fibromyalgia — for which there is limited treatment — may have fewer symptoms, be more satisfied with their health and possibly incur lower costs.

But fibromyalgia wasn't a recognized diagnosis 30 years ago. Nor were

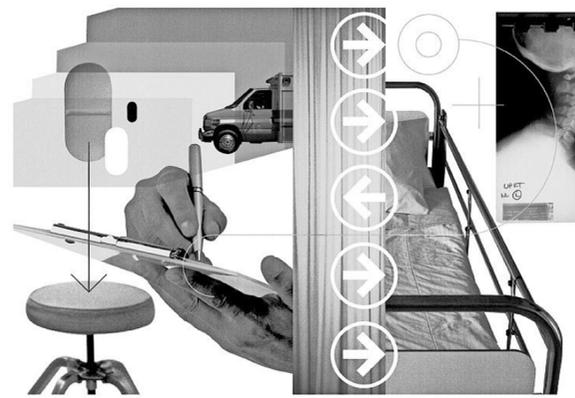
many other now-common diagnoses that have only recently been recognized and treated as medical conditions.

Since the 1980s, there's been a rapid expansion in the number and complexity of medical diagnoses — a trend known as "medicalization." A recent study found that the cost of 12 newly medicalized conditions — things like irritable bowel syndrome, post-traumatic stress disorder, low testosterone, attention deficit hyperactivity disorder — now approaches \$80 billion a year, or about 4 percent of total health care spending. That's about as much as we spend on heart disease or cancer, and more than we spend on public health initiatives.

Our ever-expanding armamentarium of diagnoses no doubt offers comfort, attention and a path to treatment for many previously undiagnosed — and undiagnosable — patients. But we may also be medicalizing much of normal human behavior — labeling the healthy as diseased and exposing them to undue risk of stigma, testing and treatment.

Trouble sleeping is now insomnia. Shyness is social phobia. Grief is depression. Infidelity is sex addiction. It's not that these diseases don't exist — the spectrum of human behavior is broad, and the extremes do represent real pathology — but we may be drawing lines in the wrong places, with negative health and financial consequences.

A central problem is that medicalized diagnoses often come with medicalized treatments: Our penchant for



STUART BRADFORD

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pills outstrips even our desire for diagnosis. Since the 1990s, the number of office visits for sleep problems has doubled, and diagnoses of insomnia have increased sevenfold. But prescriptions for sleep medications have increased more than 30 times.

This is perhaps most concerning for children. About 12 percent of children in America now carry a diagnosis of

A.D.H.D. and there was a 40-fold increase in childhood bipolar disorder diagnoses between 1994 and 2003. Five times as many children are now prescribed psychostimulant and antipsychotic medications as were in the 1980s. Today, a quarter of children and teenagers take prescription drugs regularly, and seven percent of older adolescents and young adults report abusing opioids — most of them initially prescribed by a doctor.

With millions of Americans taking risky medications for questionable diagnoses, have we medicalized everyday life?

There's no shortage of factors that have gotten us here. The pharmaceuti-

cal industry, for instance, has taken an active, sometimes dubious, role in defining and promoting new diagnoses, through direct-to-consumer advertising and physician outreach efforts.

Often overlooked, however, are how the psychologies of doctors and patients contribute. Clinical encounters that don't end with a definitive diagnosis — a clear acknowledgment of the enemy — are inherently unsatisfying. Doctors, through their training and mandate, are motivated to package a constellation of symptoms into something that can be understood, named and treated.

At the same time, we have both a growing arsenal of medications to fix patients' problems and a steadily shrinking number of minutes in which to do so. Not surprisingly, the path of least resistance becomes labeling and prescribing, instead of exploring and managing.

Patients are motivated by the understandable desire to name and ease their suffering — and today, many more patients have that opportunity. But it also means that much of normal human experience is treated with prescriptions instead of patience. This is perhaps not surprising. We increasingly have easy solutions at our fingertips: Dial-up modems have given way to broadband; stores are being replaced by Amazon drones; courtship is now Tinder. Is it wrong for patients to expect quick fixes from medicine?

An important step forward may be putting more emphasis on nonprescription remedies. For many medical-

ized conditions, lifestyle changes are often just as effective as medications, if not more so (and don't come with side effects).

Patients and doctors should also regularly reconsider whether a given diagnosis still applies over time. Many patients diagnosed with depression, asthma, acid reflux or insomnia may not meet the criteria for these conditions when reassessed, but they often continue taking medications, even after the symptoms have resolved.

More fundamentally, we need to reconsider where the upper and lower bounds of diagnosis should be. Many experts believe the pendulum has swung too far, to the point where much of normal human behavior now falls within treatment thresholds. This reassessment is particularly important because those with mild or borderline symptoms may be less likely to benefit from treatment than those with more severe symptoms.

Diagnosis is complicated. It can be a path to acceptance and treatment or a road to risk and stigma. More diagnoses mean more patients can heal but also that more might suffer. Figuring out who will be helped — and who will be harmed — might be the most important diagnosis we make.

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