

HEALTH & SCIENCE

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ALLA DREYVITSER/
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WOMEN'S HEALTH

PERSPECTIVE

Why women feel pain differently from men

BY HAIDER J. WARRAICH

With chronic pain, equality doesn't exist between men and women.

Women have it worse: They are much more likely to experience chronic pain than men, and are much more likely to have almost every condition associated with chronic discomfort such as migraines, fibromyalgia, irritable bowel syndrome and autoimmune conditions like rheumatoid arthritis, among others. Many of these are "contested conditions" since they might not show up on a CT scan or a blood test, causing some doctors to wrongly dispute their existence.

While women have benefited more than men from the seismic increase in longevity over the past two centuries, and on average live five years longer than men, they also often live longer with disability.

In addition to being more likely to have chronic pain, most women experience significant discomfort on a monthly basis for much of their adult lives with menstruation

SEE PAIN ON E4

For 95-year-old, key to longevity is a purposeful life

BY KATHERINE ELLISON

All through the pandemic, while so many Americans have languished — feeling cooped-up and searching for reasons to get out of their pajamas — Olga Murray has flourished.

Approaching 96, at an age when many of her peers are isolated and in poor health, she has been eagerly planning a trip to Kathmandu, the capital of Nepal, while keeping in touch with hundreds of friends around the world who admire her boundless energy and perky habit of saying things like: "I feel so fortunate. You can't imagine."

Is it her good genes? (Her mother lived to 98.) Her daily salads and thrice-weekly

SEE PURPOSE ON E5

Often harmless, virus can cause defects in a fetus

BY MARLENE CIMONS

Kimberly LaPlante's second pregnancy was as uneventful as her first. She suffered numerous colds, probably caught from her older daughter, Georgia, who was in day care. But LaPlante wasn't concerned. "I didn't think much of it," she says. "She was bringing home all sorts of germs, as all kids do."

LaPlante, 36, a statistician who lives in Springport, Mich., had a full-term and normal delivery with daughter Audre, now 2. Although Audre failed her initial newborn hearing screen, the doctors told her parents not to worry, given the high rate of false positives. They suggested a repeat test

SEE CMV ON E5

PERSPECTIVE

A spot upended my routine breast checkup

BY ALISA SCHINDLER

Imagine being on a train for hours passing field after field, nothing but prairie. Then suddenly a clown in oversized shoes and big red nose appears out of nowhere, juggling. Lulled by the familiar landscape, this new information takes a moment to process, but by then the train has moved on and you wonder if you imagined it.

Driving home from the radiologist was like that. Just a mark on a scan, he says. Probably nothing. But let's just put any concern to rest and check it out.

My husband is very solicitous when I get home. He is usually nice, or at least reasonably nice, but now he is more so — I'll drive the kids to school so you don't have to go out in the cold. Just order that new chair you want. Let's hug. A lot. And that is weird. He is being sensitive, which I appreciate, but still makes me feel off center. I am sure it is pretty much how he is feeling, too. Off center. The train has revealed something unexpected and jolted us awake.

SEE BREAST TEST ON E4

MORE WOMEN'S HEALTH

The issue of "brain fog" and menopause. E3

First Zika, now covid-19. E4

A geriatrician deals with demands of aging up close. E6

ALSO INSIDE Former circus elephants revel in their new sanctuary home. E2 | In the 1700s, Benjamin Banneker documented 17-year cicadas. E2

What science says about zinc supplements, colds and covid-19. E3 | A program to help oyster farmers hurt by the pandemic may help restore bivalve mollusks' beds. E6

WOMEN'S HEALTH

In aiding children, nonagenarian feels young at heart

PURPOSE FROM E1

workouts? Or might it have something to do with the retired lawyer's second career as founder of a nonprofit organization that, among other achievements, has rescued nearly 13,000 young girls in Nepal from being trafficked as enslaved kitchen servants?

Scientists increasingly are finding that some variation of that third factor — call it living with purpose, finding meaning in life or just engaging with something larger than yourself — can be a particularly healthy pursuit. It's also relevant for older U.S. women, who outnumber older men by about 6 million, and on average at age 65 can expect to live roughly another 21 years — about three years longer than men.

As a 2019 study of nearly 7,000 elders discovered, living with a sense of purpose, which Murray has in abundance — can improve the quality of those final years and even prolong them.

In his 1946 book, "Man's Search for Meaning," the Austrian psychiatrist and Holocaust survivor Viktor Frankl wrote that belief in something "external" — potentially as mundane as unfinished work, or the hope to reunite with a loved one — helped prisoners survive.

Nearly 80 years later, experts acknowledge that some of the science is still squishy, confounded by biases in self-reporting (Murray was perky long before she found her second calling) and varying interpretations of the meaning of "meaning."

Still, a critical mass of evidence suggests that a conviction that life is meaningful can bring benefits, such as better cardiovascular health, mental sharpness and general likability, according to a recent analysis of "The Science of Meaning of Life" in the Annual Review of Psychology.

Some good news, from this report and others, is that you don't have to win comparisons to Mother Teresa or get a medal from the king of Nepal, as Murray has done, to reap benefits.

Joshua Hicks, Texas A&M psychology professor and co-author of the recent review, says re-

searchers have found that most people tend to rate their lives as meaningful, based on such garden-variety inspirations as being in a good mood, having religious faith and having friends.

Murray, the co-founder, past president and current chief fundraiser for the Nepal Youth Foundation (NYF), offers a vivid example of how to create a sense of meaning from scratch, and the benefits it brings.

Her health isn't perfect. She takes pills for high blood pressure and has difficulty walking more than a few blocks at a time. Yet she would rather talk about anything else — and there's so much more to talk about.

"I'm not a doctor but I do know that when I get out of bed every morning and think that I might help a little kid in Nepal, I'm not focused on my body," she says. "My main focus is on the kids."

The story of Murray's third act begins in 1984, after she had worked 37 years as a California Supreme Court staff attorney in San Francisco and was starting to think about retirement.

She knew she wanted to do something involving children, although she hadn't imagined anything more ambitious than tutoring or maybe advocating for kids in juvenile court. Long-divorced, with two devoted stepsons, but never having had kids of her own, she says, "I have always loved children, and have endless patience with them — not as much with adults."

At 59, while trekking in the Annapurna foothills of Nepal, Murray found herself enchanted by the children dogging her tracks. Staring and laughing at the blue-eyed foreigner with hair as white as the Himalayan peaks, "they were poor beyond anything I had ever experienced: dirty, dressed in ragged clothes, malnourished, without toys of any sort," she recalled in a self-published memoir years later. "Yet they were the most joyful, funny, amiable little kids anywhere on earth."

One evening, while visiting a villager's dirt-floor hut, Murray and her guide watched three children do their homework by can-



CHERYLYN PARSONS

Olga Murray, co-founder of a nonprofit group aiding Nepalese children, is still active, fit and happy — possibly because she's helping others in the world.

"When I get out of bed every morning and think that I might help a little kid in Nepal, I'm not focused on my body. My main focus is on the kids."

Olga Murray

dleight. Their father proudly explained that they were among the lucky few who were able to go to school, even though they had to walk two hours to get there.

Later on, alone in her tent, Murray had what she described as a "totally unexpected flash of insight." She wanted to devote the rest of her life to helping educate Nepalese children.

The vision took some time to realize. Returning to Nepal the next year, she met Allan Aistrophe, then a volunteer English teacher at the country's only orphanage. The two combined forces, beginning with organizing college scholarships for four of the orphans.

After another five years — while keeping "files in tin trunks under the bed," — as Murray recalls, they had launched NYF, which by then was supporting several hundred scholarship students and raising 60 homeless children.

In 1994, the two hired Som-

paneru, a former scholarship student, as executive director. Six years later, Aistrophe left to launch a separate nonprofit organization. (He died in 2018.)

It was Paneru who first learned that thousands of western Nepalese girls as young as 6 were being sold by their fathers to become domestic servants, despite national laws against child labor. The practice, known as *kamlari*, had persisted for many generations.

One trafficked girl, Bishnu Chaudhary, was sold to pay off a \$50 debt when she was just 10 years old. Her "owners" worked her from 4 a.m. to as late as 11 p.m., as she recalls, making her care for their children and a buffalo, cut the grass, and clean the house.

"The son used to beat me very often," she says. "He sometimes spit on my food and I had to eat that food."

Paneru and Murray deter-

mined to try to help, but the girls' mothers warned them not to give the fathers cash, fearing they would spend it on alcohol. Paneru came up with the idea of giving the families a piglet in return for keeping their girls at home. The families could feed the animals with kitchen scraps and sell them at year's end to pay off their debts.

Over the next several years, the NYF handed out several thousands pigs, and later, goats. It also supported the girls who were liberated as they organized themselves, marching in the streets, handing out fliers and performing plays to raise awareness.

In 2013, Nepal's government gave in to the pressure and outlawed *kamlari*, after which Murray's group turned its focus to providing education and job-training support for more than 10,000 of the freed girls.

"If a girl is earning money and has a good job, she won't be married off early and exploited," Mur-

ray says.

She is delighted that former *kamlari* girls, including Chaudhary, are now running their own support programs under NYF auspices, providing psychological counseling, micro-lending and strategies for new business cooperatives. The NYF "changed my identity — from slave to human being," Chaudhary says.

Before the pandemic stymied international travel, Murray spent half of each year in Nepal, where she has a home and large dinner parties for visiting program graduates.

"Every time she returns, she is met at the airport by big groups of kids with flowers and balloons," says the Chilean-American author Isabel Allende, a longtime donor, friend and fan.

Murray has taken several steps to make sure the NYF will survive after the inevitable loss of her charismatic presence. She ceded the presidency to Paneru in 2012, and while still closely engaged, has never hesitated to delegate, Paneru says.

Under Paneru, the NYF has diversified its sources of funds, launching chapters in Hong Kong, Australia and Europe. He credits Murray for helping him forge his own connections with donors.

"I'm not going to be around forever, and the thing I want most in the world is for this program to go on," Murray says.

Young women like Chaudhary, who is now 27, give her faith that it will.

As a student, Chaudhary was such a passionate champion of banning *kamlari* that she risked being expelled from school to help rescue servants working for her teachers and principal. Earlier this year, she became the first freed *kamlari* to pass the bar in Nepal, with plans to be a social activist attorney.

Hearing that news felt "like closing a circle," Murray says. "I remember when I passed the California bar in 1954, eager to do good in the world, and here we are 66 years later with a former enslaved child becoming a human rights lawyer."

Murray says she hopes to congratulate Chaudhary in person when she returns to Nepal in October, assuming the pandemic there has waned. Before that, she'll keep busy — as usual — leading a new fundraising campaign, celebrating Paneru's 25th work anniversary, and joining yet another international Zoom call in June for her 96th birthday.

Hundreds are expected to attend.

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Pregnant women rarely warned by doctors about CMV

CMV FROM E1

later, which the baby passed. Her parents assumed she was fine.

But a year later, Audre still wasn't talking. "She didn't have any hard consonant sounds in her babbling," LaPlante says. By age 15 months, she was unresponsive to conversation. "In day care, she was only engaging in something she could see, such as clapping," LaPlante says.

Eventually, she was diagnosed with a severe hearing loss, which probably had been progressive since birth, the doctors said. Further tests performed on stored dried blood samples taken right after delivery revealed she had been infected with cytomegalovirus (CMV) during pregnancy.

CMV, a common virus in the herpes family, is harmless most of the time, except for those with impaired immune systems — and to a developing fetus.

Like all herpes viruses, including those responsible for genital herpes and chickenpox (and later shingles), infection with CMV is chronic. The virus remains in the body, although it can become dormant, and then less likely to be passed along during pregnancy. During an active primary infection, however, if transmitted in utero to a developing fetus, it can cause premature birth, hearing loss, vision problems, low birth weight, developmental delays and brain abnormalities, among other things.

Women can catch it from their toddlers.

In women with a primary CMV infection, the virus is transmitted to the fetus up to about 40 percent of the time, says Suresh Boppana, a CMV expert and professor of pediatrics and microbiology at the University of Alabama at Birmingham.

"Those who've had a past infection can still pass it on to babies, but the frequency is much less, about 1 percent, likely because the mother already has a

certain level of immunity which also protects the fetus," he says.

CMV infects about 1 in every 200 babies during pregnancy, although most infants are asymptomatic, Boppana says. Still, "about 10 to 15 percent will have a bad outcome, the most common being hearing loss," he says. "Hearing loss can be present at birth, or start developing later on, usually in the first few years of life, and then continue to deteriorate over time."

CMV is spread through direct contact with bodily fluids, such as saliva, blood or urine, and women can catch it from their toddlers when they share food, cups and utensils, change diapers, and even kiss, especially on the lips.

The American College of Obstetricians and Gynecologists lists CMV as one of the pathogens pregnant women should try to avoid, advising those with young children in the home to wear gloves and wash their hands frequently. Even so, "awareness is a huge problem," Boppana says.

Many mothers of afflicted children criticize their obstetricians for failing to warn them about CMV, and not advising them of steps they should take to reduce the chances of infection.

"I never knew I was vulnerable and my obstetrician never told me to be careful around Georgia," LaPlante says. "No one said: 'Don't share utensils, or put her pacifier in your mouth. Don't give each other sloppy kisses.' But all of that is normal mother behavior. I wasn't ever told the things not to do. I went back to my obstetrician and told her I was upset, and she told me that [discussing CMV] wasn't a part of standard prenatal care. Had I known earlier, I would have tested Audre's hearing more regularly and caught the decline in her hearing more quickly."

Megan Pesch, a pediatrician at the University of Michigan's C.S. Mott Children's Hospital whose

third daughter became infected during pregnancy, says that many health-care providers tend to minimize or ignore the risks. She says her own medical training downplayed the dangers.

"We were taught that CMV babies looked like 'blueberry muffins,' with these spots all over them, and that they were extremely small, with small heads and jaundice, with enlarged spleens and livers, and were very sick," she says. "In truth, this is the exception and not the rule. I went back and looked at my notes at what I'd learned in residency and medical school, and what we learned was so rudimentary and basic."

Pesch's daughter, now 2½, is deaf. Pesch probably contracted the virus from one or both of her two older daughters, then 3 and 2, she says.

"Toddlers and preschoolers have an extremely high viral load in their bodily fluids, and most women tend to get it from their children," she says. "Kissing on the lips, sharing food — you bet I ate that waffle with only one bite in it — not washing hands after changing a diaper. But when you are a mom on the go, it's easy to miss. I was not looking out for that. It makes me sick to think about it."

Her newborn daughter failed her hearing screen, but Pesch wasn't alarmed at first. "I knew that 90 percent of babies who fail end up passing eventually," she says. "As a pediatrician, I had reassured dozens of parents in the same situation in the past. I was resolute not to be anxious mom."

During a shopping trip, however, a store alarm went off, frightening Pesch, but it had no apparent effect on the baby.

"I leapt out of my skin, and she slept right through it," Pesch recalls. "We decided to check her hearing again. They couldn't get any reaction from her, and told us she was profoundly deaf. We were not prepared for that."



ISTOCK

The doctors told Pesch the cause probably was genetic.

"I asked about CMV, not because I had an inkling, but I was just going down my list as a pediatrician, and we were told it was very unlikely because she looked so normal," she says. "We had her dried blood spots tested, and they came back positive," meaning she was infected during pregnancy.

Several states and medical systems already test newborns for CMV, but usually only after they fail a hearing screen.

Her daughter received cochlear implants when she was a year old, one in each ear, which enable her to hear sounds, but they won't restore normal hearing.

"It's been a wild experience watching her learn to hear," Pesch says. Still, "she's not picking up on things as quickly as we would like. She responds. She bops along to songs. She's picking

up sign language. She's a happy kid. Her life is very full and joyful.

"The suffering and struggling is more on my part, having to adjust my expectations," she says. "I waver between feeling guilty and feeling furious. I have spent — how many years of my life in developmental pediatrics? — how could I not have known?"

Pesch and other mothers are trying to educate more women about fetal CMV. Kristen Hutchinson Spyttek, a marketing consultant in Tampa, was one of six women who established the National CMV Foundation, which seeks to make CMV information more available, and is pushing for universal CMV newborn screening.

Several states and medical systems already test newborns for CMV, but usually only after they fail a hearing screen, according to the foundation.

Spytek's daughter, Evelyn Grace, was born in 2013 with multiple medical issues resulting from congenital CMV — impaired vision, poor muscle tone and brain abnormalities — and died at age 21 months from an infection she acquired during surgery to insert a feeding tube. Spyttek, who later gave birth to two uninfected sons, is frustrated

by the lack of CMV awareness, especially from doctors.

"They tell you about wine and sushi and kitty litter, but not CMV," she says, referring to the risks posed by alcohol and organisms in raw fish and cat waste.

Meanwhile, researchers are trying to develop treatments, as well as a vaccine to prevent infection in women of reproductive age.

Moderna, a pharmaceutical and biotechnology company, has developed an experimental vaccine based on the same mRNA approach used in its recently approved coronavirus vaccine, with clinical trials underway.

Scientists also are studying whether the antiviral drug valganciclovir can halt or slow the progression of hearing loss in affected children, although not reverse it. The drug, which interferes with viral replication, already is in use among transplant recipients and patients with HIV.

"The goal is to determine if this drug actually works in this group of children, and whether it is safe," says Albert Park, the study's principal investigator and chief of pediatric otolaryngology at the University of Utah. "We don't expect to see a lot of improvement, but we are trying to avoid further worsening. It has real implications for these children, as hearing loss often gets worse over time and can have a huge impact on families."

LaPlante says she agrees that the consequences for unprepared families can be devastating. "I was blindsided," she says. "More moms need to know about this."

Daughter Audre underwent cochlear implant surgery in February. The devices were activated in March, and LaPlante says she hopes they will help.

Nevertheless, even with the implants, "Audre will always be dealing with hearing loss" she says. "It will be part of her life forever."

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