

The science is in: God is the answer

Research shows kids raised with spirituality are happier and healthier in the vulnerable teen years. Why aren't we all signing up?

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Eighteen years ago, **Lisa Miller**, now the director of clinical psychology at Columbia University's Teachers College, had an epiphany on a New York subway car. She had been poring over the mountains of data generated by a three-generation study of depressed women and their children and

grandchildren. The biological trend was clear: Women with severe—and particularly with recurrent—depression had daughters at equally high risk for the psychological disorder. At puberty, the risk was two to three times greater than for other girls. But the data seemed to show that the onset and, even more so, the incidence of recurring bouts with depression, varied widely.

Miller couldn't discern why. Raised in a close-knit Midwestern Jewish community, she had already looked for what she says psychologists rarely bothered to seek—religious belief and practice—and found some mild benefit for both mothers and children, but nothing that stood out among the other variants, such as socio-economic status. Then came the subway ride.

"There I was, on a Sunday—quite invested in this question, wasn't I, going up to the lab on a Sunday," recalls Miller in an interview. She was in a subway car crowded at one end and almost empty at the other, because that end was occupied by a "dirty, dishevelled man" brandishing a piece of chicken at everyone who boarded while yelling, "Hey, do you want to sit with me? You want some of this chicken?" The awkward scene continued for a few stops until an older woman and a girl of about eight—grandmother and granddaughter, Miller guessed—got on. The man bellowed his questions, and the pair nodded at one another and said, "Thank you," in unison, and sat beside him. It astonished everyone in the car, including Miller and the man with the chicken, who grew quieter and more relaxed.

The child's evident character traits—compassion, acceptance, fearlessness—at so young an age prompted Miller's eureka moment. What struck her was the nod and all it implied: "It was clear as day that the grandchild fully understood how one lives out spiritual values in her family." Twenty minutes later, Miller was in her lab, running

equations on the data that were, in effect, a search for “the statistical nod.” She was looking for mother-teen pairs who had reported a shared religion or non-religious spirituality. She calls the results “the most amazing science I had ever seen.” In the pairs Miller found in the data, shared spirituality (religious or otherwise)—if it reached back to the child’s formative years—was 80 per cent protective in families that were otherwise at very high risk for depression.

It was the start of a long and sometimes rocky road for both Miller and the place of spirituality—however defined—in mainstream psychological thinking. She remembers doors literally slammed in her face and “people walking out of talks I was giving.” But Miller and other researchers, including so-called “spiritual” neuroscientists like Montreal’s Mario Beauregard and the much-cited American psychologist Kenneth Kendler continued to explore the intersection of religiosity and mental health in studies published in major, peer-reviewed science journals. By the end of it, as Miller sets out in a provocative new book, *The Spiritual Child*, out later this spring, she was convinced not only of spirituality’s health benefits for people in general, but of its particular importance for young people during a stage of human development when we are most vulnerable to impulsive, risky or damaging behaviours.

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In fact, Miller declares, spirituality, if properly fostered in children’s formative years, will pay off in spades in adolescence. An intensely felt, transcendental sense of a relationship with God, the universe, nature or whatever the individual identifies as his or her “higher power,” she found, is more protective than any other factor against the big three adolescent dangers. Spiritually connected teens are,

remarkably, 60 per cent less likely to suffer from depression than adolescents who are not spiritually oriented. [tweet this](#) They're 40 per cent less likely to abuse alcohol or other substances, and 80 per cent less likely to engage in unprotected sex. Spiritually oriented children, raised to not shy from hard questions or difficult situations, Miller points out, also tend to excel academically.

And teenagers can use all the help they can get. Recent research has revealed their neurological development to be as rapid and overwhelming as their bodily change. The adolescent brain is simultaneously gaining in intellectual power and losing in emotional control; its neural connections—its basic wiring—is a work in progress, with connections between impulse and second (or even first) thought slower than in adults. There is a surge in unfamiliar hormones and, as it turns out, a surge in spiritual longing.

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Humans have an innate tendency to ascribe random and natural events to conscious agents and a hunger to belong to something larger than ourselves—both militant atheists and fervent believers can agree on this. The urge is never sharper than in adolescence, when, in the fraught process of individuation, teens develop their own sense of the world and their place in it. "A teen looks out at what's been handed to him or her, from family or community," Miller says, "and asks, 'What about these values, what about this way of life is me, and what is not me?' And this 'me/not-me' work is the most important work a teen does."



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In Miller's view, and that of many traditional cultures, individuation—the way children become their own individuals rather than unconscious copies of their parents—is an essentially spiritual process. When that process runs into difficulties, says Miller, the health effects can be severe, especially in terms of depression, to which adolescents are suddenly vulnerable. In fact, half of all adults who have suffered depression had their first experience in adolescence; teens are considered the demographic most at risk for it. Research shows that up to 20 per cent of adolescents have a major depression episode at some point, with an additional 40 per cent or more exhibiting what are known as “sub-threshold” levels that leave them distressed enough to seek treatment at the same rates as kids with major depression—and as much at risk for depression in their adult years.

And numbers approaching two-thirds in a single age bracket, Miller argues, are far too high to ascribe to illness alone. Her argument is that brushes with depression are intrinsic to developmental and spiritual awakening. Teens in this often excruciating situation sometimes will turn to substance use, risky sex, physical danger—all of which are shortcuts to transcendence that ultimately have their roots in the same universal drive. On the other hand, adolescents who have supported spiritual lives, especially dating back to childhood,

and “practice in asking and living through hard questions, are more prepared to face them,” Miller says.

The evidence for a personal religious advantage is overwhelming, Miller claims, drawn from literally “hundreds” of epidemiological and longitudinal studies. In a 2002 article published in the *Journal of the American Academy of Child and Adolescent Psychiatry*, data taken from a 1995 survey of 3,300 teen girls in North Carolina showed that higher frequency of prayer or meditation correlated with decreased risk of depression. It’s worth noting that the advantage was conferred by individual devotion rather than the degree to which the girls believed sacred writings were the literal word of God—spirituality, then, rather than religion.

(Other studies have identified this distinction, which was first laid out in Kendler’s *landmark twin study* in 1997. Examining 1,900 female pairs, identical and fraternal, in the Virginia Twin Registry, he concluded people’s religious practices were broadly determined by environment, but that individual devotion was almost 50 per cent due to a twin’s “unique personal environment.”)

A 2005 study found that a teen with this sort of spiritual connection—as manifested by statements like “I turn to God for guidance in times of difficulty”—was at least 70 per cent less likely to move from substance dabbling to substance abuse. Again, the key was personal engagement; there was no protective factor at all from going to church or taking part in family prayer when those acts came from obligation rather than conviction.

And a massive 2012 study from the department of child and family services at the University of Tennessee looked at 9,300 teens from half a dozen countries and regions, from China and India to Palestine and the United States. Its authors cited an earlier American study that showed that religion had an inverse correlation with anti-social

behaviour, including substance abuse, carrying weapons and drinking and driving, and a positive correlation with what the researchers called “pro-social behaviour,” which included everything from volunteerism to school engagement. Across the world, the Tennessee study found, adolescents who were more religious than their peer groups had lower rates of depression and higher self-esteem. Those teens who reported experiencing such internal states as “relational spirituality” and “meaningfulness of religion” also reported lower levels of depression. “Overall, there is much support for the relationship between religiosity and youth psychological well-being,” the authors wrote.

Similar correlations have been seen by neuroscientists who work primarily with adults. Researchers who have used neuroscans to examine people at high familial risk for depression have noted brain abnormalities. One 2004 study pinpointed cortical thinning across the lateral surface of the right cerebral hemisphere, which the authors suspected would produce disturbances in sensory arousal, attention and memory for social cues, a situation they suggested might explain the increased chances of developing depression.

“In our lab, we looked at the brains, through MRIs, of people who had a strong sense of relationship in a transcendental dialogue with their higher power,” recalls Miller. That two-way sacred relationship is central to Judeo-Christian spirituality—hence the importance of the subway nod—and those people showed a thickening of the cortex in the same region. “They essentially had stronger wiring, through a sustained personal spirituality,” Millar explains. The exact implications of the neurological findings remain tentative, but stronger, thicker wiring is considered beneficial.



In his now iconic brain-scan studies of Franciscan nuns praying and Buddhist monks meditating, **Andrew Newberg**—perhaps the leading American expert on the neurological aspects of religion—saw the same neural pathways being used (and strengthened) whether his subject was seeking God or attempting to become one with the cosmos. So Miller was delighted to learn that her lab’s work with devout Christians was, “in an entirely different lab, in an entirely different sample,” replicated with subjects who were meditating. “This is no longer prayer in the Judeo-Christian tradition, this is experienced meditators,” says Miller. “And they too showed cortical thickening in the same regions.”

Patrick McNamara, whose neurological lab at Boston University studies what happens to the brain in religious practice, says, “There are studies that show that religiosity is associated with better executive function and self-control. Those things are moderating factors on a whole host of health-related behaviours.” Although he is more cautious than Miller and thinks religion’s protective features need

more study, McNamara agrees that “in the long run we think that religiosity will confer a protective effect against all kinds of disorders.” McNamara has studied the role of the frontal lobes—the part of the brain that exerts executive control over other regions and which teens, incidentally, find hard to access—in religious experience. “The right prefrontal region is especially important for supporting maintenance of the self,” he says. “People who’ve had strokes in that region have problems with self-concept, and people who have dysfunction in that region show lower scores on religiosity tests—that’s what we found.” A strong self-concept, which tends to be enhanced by religion, he notes, is associated with better health outcomes.

In the two decades since she began her career, Miller’s field has moved from the fringe to respectability. Universities such as Duke and Baylor have **research centres** that focus on the intersection of religion and health and publish studies looking at everything from integrating spirituality into nursing care, to private religious activities and cardiovascular risk, to the interconnections of religious involvement, inflammatory markers and stress hormones in chronic illness. In 2012, Columbia’s teachers college, the oldest and largest graduate school of education in the United States, began to offer the Ivy League’s first master’s concentration **in spiritual psychology**.

Miller’s ideas may also resonate more with many Canadians than the conventional wisdom about religion’s decline would suggest. University of Lethbridge sociologist **Reginald Bibby** pioneered the study of religious trends in Canada. His newest data, gathered in partnership with the not-for-profit Angus Reid Institute, sees more than a quarter of Canadians reject religion, compared with the 30 per cent who embrace it. But there is a vast middle ground, 44 per cent, who file themselves between those two poles. Most of them

presumably overlap with the 40 per cent of Canadians who call themselves “spiritual but not religious.” Some of the antagonism to, and hesitation about, religion comes from a reaction to organized religion’s institutional hypocrisies—shunting pedophile priests from one diocese to another, for example—and from what modern Westerners increasingly see as intolerable restrictions on their personal autonomy. But Miller says she frequently encounters mothers who worry the spirituality baby has been tossed out with the religious bathwater. The dogma-free spirituality she recommends (and practises herself), which can be “cultivated in nature, in service, in human relationships,” has appeal for adults, and not just for the benefits it promises their children.

But while the public may be open to Miller’s ideas and her fellow academics may no longer slam their doors on her, not everyone is sold on her conclusions. Many materially minded social scientists are skeptical of the neurological view and argue that the health benefits conveyed by religion result from the community support it offers. In her 2014 book *The Village Effect: How Face-to-Face Contact Can Make Us Healthier and Happier*, Montreal-based developmental psychologist Susan Pinker cites a seven-year study of 90,000 women from across the U.S. that found that those who attended religious services at least once a week were 20 per cent more likely to have longer lifespans than those who did not. As much as the attendance itself, Pinker points to the ritualistic physical synchrony of religious services, the way “praying, chanting, singing, swaying and rocking all together” is “brain-soothing.”

The social benefit of community is behind the sporadic attempts, mostly in the U.S. and Britain, to establish “atheist churches,” though this “if you can’t beat ‘em” thinking—epitomized by skeptical philosopher Alain de

Botton's comment, "Religion is too important to be left to believers"—is repellent to more militant atheists. The human tendency toward religious belief should be resisted in the cause of evidence-based science, not accommodated, even in health care.

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Their cause is bolstered by religion's dark side. Tight-knit religious communities can also be over-controlling and outright abusive. "Look at Bountiful," says Pinker, in reference to the polygamy and child-trafficking charges laid against members of a fundamentalist Mormon community in the small B.C. town. And fundamentalist teens often exhibit high levels of risk-taking because, Pinker says, they have no space for mild rebellion. "They are from families where it is easier to get pregnant at 15 than confess to your parents you don't believe in God."

In fact, depression can strike those adolescents harder than teens outside organized religion. A paper by [Rachel Dew](#), a prominent religion and health researcher at Duke University, examined 117 teen psychiatric patients, most from religious families, and found depression in them linked strongly to feeling abandoned by God or unsupported by their faith communities.

Dew, one of the most cited researchers in her field, agrees in an interview that there is "overwhelming evidence that teens involved in religion are less likely to fall into drug or alcohol abuse," particularly teens who "self-identified" with their faith. Still, Dew continues, studying depression rates so far provides less certain evidence of the health benefits of spirituality or religion. Part of the reason for caution, she

says, is that researchers are still uncertain how to define religion and are wrestling with questions of correlation and causation. "We know from twin studies that there is a genetic predilection for religion," she says. When that's accompanied by a lower risk of depression, is the cause "in the religion or in the same genetic predisposition?"

Moreover, many survey tools remain unsophisticated, seeking religious internalization through religious affiliation questions like "Do you go to church?" "Here in the South," says Dew, "people see no difference between spirituality and religion."

Miller thinks it all actually proves her case. In a very real sense, she says, debates over social versus natural, or about neural correlates, miss the point. When she talks about spirituality, she says, it's with the pragmatism derived from clinical experiences, itself born from patients' experiences. "No one's laying any theology or implicit theology on the child; it's his or her emerging natural spirituality," she says. Look at the narratives of those who come out of addiction, Miller urges. "They say, 'It was a hunger to feel a sense of connection that got me in, and it was when I found my relationship with my higher power that I came out.'"

Parents don't need "big answers" for adolescents working through this, Miller says, and certainly not dogmatic answers. "We just need to show up and take an interest, and let them know the work is real, that this is the set-up, the foundation on which they'll build their house in life." However defined—and Miller's own includes "Shabbat and Seder and a lot of nature"—an inclusive spirituality plainly works for human health and well-being, "and that's why we do this work, to help kids not suffer."

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