Spirituality, religion may protect against major depression by thickening brain cortex, study finds

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A thickening of the brain cortex associated with regular meditation or other spiritual or religious practice could be the reason those activities guard against depression – particularly in people who are predisposed to the disease, according to new research led by Lisa Miller, professor and director of Clinical Psychology and director of the Spirituality Mind Body Institute at Teachers College, Columbia University.

The study, published online by JAMA Psychiatry, involved 103 adults at either high or low risk of depression, based on family history. The subjects were asked how highly they valued religion or spirituality. Brain MRIs showed thicker cortices in subjects who placed a high importance on religion or spirituality than those who did not. The relatively thicker cortex was found in precisely the same regions of the brain that had otherwise shown thinning in people at high risk for depression.

Although more research is necessary, the results suggest that spirituality or religion may protect against major depression by thickening the brain cortex and counteracting the cortical thinning that would normally occur with major depression. The study, published on Dec. 25, 2013, is the first published investigation on the neuro-correlates of the protective effect of spirituality and religion against depression.

"The new study links this extremely large protective benefit of spirituality or religion to previous studies which identified large expanses
of cortical thinning in specific regions of the brain in adult offspring of families at high risk for major depression," Miller said.

Previous studies by Miller and the team published in the *American Journal of Psychiatry* (2012) showed a 90 percent decrease in major depression in adults who said they highly valued spirituality or religiosity and whose parents suffered from the disease. While regular attendance at church was not necessary, a strong personal importance placed on spirituality or religion was most protective against major depression in people who were at high familial risk.


Provided by Columbia University


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