

Antidepressants' Unexpected Effect on Quality of Life

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Antidepressant use is not associated with significant improvement in health-related quality of life (HRQoL) in patients with [depression](#), new research suggests.

Researchers who conducted the study admit this finding was unexpected, and outside experts say no firm conclusions can be drawn from the research.

"Of course we were surprised by the results," first author Omar Almohammed, PharmD, PhD, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia, told *Medscape Medical News*.

"We were expecting to see some positive impact with the use of antidepressant medications on the HRQoL measures when we compared these patients to patients that did not use antidepressant medications," Almohammed said.

The study was [published online](#) April 20 in *PLOS ONE*.

Controversial Impact on Quality of Life

Depression is known to harm HRQoL. Despite evidence that antidepressants improve depressed mood, their effect on patients' overall well-being and HRQoL remains controversial.

The researchers examined the effect of antidepressants on HRQoL in adults with depression using 11 years of data from the US Medical Expenditures Panel Survey (MEPS), a large longitudinal survey that tracks health service use in the US. HRQoL was measured using the 12-item Short Form Health Survey (SF-12).

On average, about 17.5 million adults were diagnosed with depression each year during the study period (2005-2016). More than half (57.6%) of these patients were treated with antidepressants.

Patients with depression had an average age of 48.3 years. Women made up more than two thirds of the total sample (68%), and more women than men received antidepressants (61% vs 52%).

Compared with no antidepressant use, antidepressant use was associated with some improvement on the mental, but not physical, component of the SF-12, the researchers report.

However, difference-in-differences (D-I-D) univariate analysis showed no significant difference between adults using and not using antidepressants in the SF-12 physical (-0.35 vs -0.34; $P = .9595$) or mental component (1.28 vs 1.13; $P = .6405$).

"The multivariate D-I-D analyses ensured the robustness of these results," the researchers note.

The change in HRQoL observed in patients using antidepressants was not significantly different from that seen among peers not using these drugs, the researchers report.

"We are not saying that antidepressant medications are not helpful at all; HRQoL is only one of many measures intended to assess health outcomes," Almohammed told *Medscape Medical News*.


"Based on our research design and data, we can only say that patients who used antidepressant medications did not experience better change in terms of HRQoL compared to patients who did not use antidepressant medications," he said.

"These patients may have had some improvement on other clinical outcome measures, but that clinical improvement did not have a significant positive impact on HRQoL," he noted.

"We still recommend that patients continue using their antidepressant medications, but they may want to ask their doctors to provide them with other nonpharmacologic interventions as this may have additional impact on their HRQoL," Almohammed said.

Further research is needed to address a "gap in knowledge" about the impact of nondrug interventions — alone or in combination with antidepressant medications — on patients' HRQoL, Almohammed added.

Experts Weigh In

 experts weighed in on the study in a statement from the British nonprofit Science Media Center.

Gemma Lewis, PhD, with University College London (UCL) in London, England, noted, "clinical trials with experimental designs have found that antidepressants improve mental health-related quality of life."

"In this study, the people who received antidepressants had worse quality of life, and are likely to have been more severely depressed, than those who did not. This type of bias is difficult to eliminate in a naturalistic study like this, which does not involve an experimental design," Lewis commented.

Eduard Vieta, PhD, with University of Barcelona, Spain, noted the "inability to control for severity of depression between the two different groups is a crucial flaw and therefore there is little we can learn from this data."

Echoing Vieta, David Curtis, MBBS, MD, PhD, with UCL Genetics Institute, said, "One might well assume that the people who were taking antidepressants had been more severely depressed than those who were not."

"From this point of view, one could argue that it seems that the antidepressants were effective and that with their use people who had presented with more severe depression did not have markedly reduced quality of life," Curtis said.

"However the reality is that this kind of observational study tells us nothing about causation. For that, clinical trials are required and numerous such trials have demonstrated that, on average, antidepressants are effective in terms of treating depressive illness and in improving the quality of life of patients with significant depression," he added.

Michael Sharpe, MD, with University of Oxford, said the study highlights the importance of measuring the long-term outcomes of treatments for depression. "However, this study has no clear implication for the care of patients with depression and certainly should not discourage patients who may benefit from taking these drugs."

Livia de Picker, MD, PhD, with University of Antwerp, Belgium, said, "What these data do point towards is the persistent treatment gap for depression in the US, with only 57.6% of patients with major depressive disorder receiving treatment with antidepressants over a 2-year follow-up."

Funding for the study was provided by King Saud University, Riyadh, Saudi Arabia. Almohammed, de Picker, Curtis, Lewis, and Sharpe have disclosed no relevant financial relationships. Vieta has participated in clinical trials of antidepressants and advisory boards for Angelini, Biogen, Janssen, and Lundbeck.

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