Study raises questions about bias in research of prescription drugs

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Researchers with personal financial ties to pharmaceutical companies tend to publish studies casting those companies’ drugs in a positive light, according to a new study published in the British Medical Journal.

On their own, the findings can’t prove a cause-and-effect relationship between accepting industry money and the outcomes of clinical research. But they do raise some important questions about the potential impact of those financial relationships and whether the medical community is doing enough to disclose those ties and reduce potential bias.

To do the study, researchers at the University of California at San Francisco selected 190 research papers published in 2013, at random, studying the efficacy of various prescription drugs. The studies were all randomized controlled trials, which are considered the gold standard for medical research and often influence opinions in the medical community and among drug regulators and policy-makers.

They found that 76 per cent of the studies that cast the drugs in a positive light were led by investigators that had direct financial ties to the companies producing the drugs. By contrast, only 49 per cent of the negative studies had lead investigators with a monetary tie to the drug companies in question.

Overall, 58 per cent of the 397 principal investigators involved with the trials included in the study had financial ties to the pharmaceutical companies they were studying, compared with 42 per cent who didn’t.

Of those with financial ties, 39 per cent said they received advisory or consultancy fees, 20 per cent received speaker fees, another 20 per cent received fees for undisclosed services and 13 per cent reported receiving honorariums. They also reported receiving travel fees, owning stock or having an employee relationship with the company in question.

The authors said there are a number of factors that could explain the phenomenon. For instance, studies with negative outcomes may simply not be published. It’s also possible that financial relationships between drug companies and researchers could impact the way studies are designed or executed, which could impact the outcome.

Dr. Salomeh Keyhani, lead author of the new study and associate professor in residence at UCSF, said the findings show more needs to be done to address issues related to conflicts of interest and bias in research, particularly when it involves studies that can greatly influence how doctors perceive and use new drugs.

She noted that, in recent years, it’s become standard practice for researchers to disclose pharmaceutical financial ties in their published studies. While those disclosures have made it easier to analyze the scope of potential bias in scientific research, it doesn’t address the bigger question of how to stop the bias from creeping in, Keyhani said.

“I think that there is a consensus in the medical community that more needs to be done to improve data standards and safeguard the evidence,” she said in an interview.

It’s necessary for researchers to work with drug companies to study new drugs, medical devices or other therapies. But Keyhani said more could be done to reduce any resulting bias, such as requiring study authors to publish all of their data, which would allow independent researchers to analyze and verify if the findings are accurate.