

Early research on cellphone conversations likely overestimated crash risk: study

December 14 2011

A Wayne State University study published in the January 2012 issue of the journal *Epidemiology* points out that two influential early studies of cellphone use and crash risk may have overestimated the relative risk of conversation on cellphones while driving.

In this new study, Richard Young, Ph.D., professor of research in Wayne State University's Department of [Psychiatry](#) and [Behavioral Neurosciences](#) in the School of Medicine, examined possible [bias](#) in a 1997 Canadian study and a 2005 Australian study. These earlier studies used cellphone billing records of people who had been in a crash and compared their cellphone use just before the crash to the same time period the day (or week) before — the control window.

Young said the issue with these studies is that people may not have been [driving](#) during the entire control window period, as assumed by the earlier study investigators.

"Earlier case-crossover studies likely overestimated the relative risk for cellphone conversations while driving by implicitly assuming that driving during a control window was full time when it may have been only part time," said Young. "This false assumption makes it seem like cellphone conversation is a bigger crash risk than it really is."

In Young's new study, his research team used Global Positioning Satellite (GPS) data to track day-to-day driving of more than 400 drivers during a 100-day period. He then divided the days into pairs, with the

first day representing the "control" day and the second day representing the "crash" day in the earlier studies. Overall, the team found little driving consistency in any given clock time period between the two days — driving time on the control day was only about one-fourth of the driving time on the crash day, during any specific clock time period.

"This underestimation of the amount of driving in the control windows by nearly four times could reduce cellphone conversation time in that control period," Young said. "It makes it appear that there is less cellphone conversation in control periods than in the time just before a crash, making the relative risk estimate appear greater than it really is."

Young found that when the cellphone conversation time in the control window was adjusted for the amount of driving, the amount of cellphone usage in the control window was about the same as in the minutes before a crash. He concluded that the crash risk for cellphone conversation while driving is one-fourth of what was claimed in previous studies, or near that of normal baseline driving.

Young added that many well-controlled studies with real driving show that the primary increase in crash risk from portable electronic devices comes from tasks that require drivers to look at the device or operate it with their hands, such as texting while driving. Five other recent real-world studies concur with his conclusion that the crash risk from cellular conversations is not greater than that of driving with no conversation.

"Tasks that take a driver's eyes off the road or hands off the steering wheel are what increase crash risk," said Young. "Texting, emailing, manual dialing and so forth — not conversation — are what increase the risk of crashes while driving."

The National Transportation Safety Board has recommended that all 50 states and the District of Columbia ban the non-emergency use of

portable electronic devices for all drivers. Young said this recommendation goes beyond the data from newer studies, including his, because it would ban cellphone conversations while driving.

"Recent real-world studies show that [cellphone](#) conversations do not increase crash risk beyond that of normal driving — it is the visual-manual tasks that take the eyes off the road and the hands off the wheel that are the real risk," said Young.

Provided by Wayne State University

Citation: Early research on cellphone conversations likely overestimated crash risk: study (2011, December 14) retrieved 18 April 2024 from <https://medicalxpress.com/news/2011-12-early-cellphone-conversations-overestimated.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--