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What can Comparisons of Randomized and Non-Randomized Studies tell us?

A strand of research in evidence-based medicine compares results of randomized and non-randomized studies with the aim of empirically evaluating claims about the methodological superiority of randomized controlled trials (RCTs). Yet clear and consistent evidence of differences between randomized and non-randomized studies have proven elusive, which some advocates of randomization describe as a “paradox.” This language suggests that, if a difference had been found, it would have been taken as evidence for the superiority of RCTs; and the fact that such a difference remains elusive is a cause of concern for some RCT advocates and delight for some RCT critics. We propose that these discussions rest on a problematic basis because it is unclear what the methodological superiority of RCTs would predict about differences in results between randomized and non-randomized trials. Progress on this issue requires a more careful exploration of hypotheses about how results of randomized and non-randomized trials would be expected to differ, on the assumption that RCTs are in fact superior. Learning objectives of this lecture include gaining knowledge of systematic reviews comparing randomized and non-randomized studies, knowledge of hypotheses that may explain differences (or lack of differences) that have been found, and potential future research questions on this topic.

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Rounds are held weekly on Mondays from 12:00 pm to 1:00 pm in the VGH Research Pavilion, Room 700, 7th Floor, 828 West 10th Avenue, Vancouver, BC.

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