

# Review of: "Can Twitter be used to improve learning outcomes in undergraduate medical education? A pilot study"

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**Potential competing interests:** No potential competing interests to declare.

In this study Gilbert et al. examine if a twitter intervention can impact Family Medicine clerkship Shelf Exam scores.

The paper offers findings from a systematic review on the subject, which show inconsistency throughout the different approaches using twitter for shelf exam score.

The number of participants in the study is small, and the question validation relied on even a smaller number of students. The score in the group participating in the intervention is compared to a previous group of individuals completing their rotations, instead of comparing it to students that did not participate in the twitter intervention. It is unclear how many students during the intervention used the twitter questions, or how authors kept track of their usage. Only 38% (n=11) of the group in the intervention (n=29) self reported to have? use? twitter. Although a non-significant Fishers test is presented when analyzing the proportion of Osteopathic and Allopathic students in both groups, there were 35%(n=6) Osteopathic students in the comparison group, vs. 59% (n=17) in the intervention group. This could explain why the intervention group showed higher score in the COMAT scores.

More importantly, there were no differences in the NBME scores. It is impossible to judge the coverage of the content used in the twitter posts, as they are not presented in the paper. The limit of a twitter post, initially 140 characters, expanded to 280 in 2017. So these might have been equivalent to flash cards. Many third party resources are used by students during their clerkships. This very important variable was not explored, and this could easily have made both groups non-comparable.