Review – Solomon et al

The question of whether training in PDM impacts behavior is important. One thing that needs to be clarified for the interpretation of this research to be clearer is whether the students in the IM rotation taking the SPE were told that the SP case would be rated based on PDM skills. Or stated another way, when the case was presented to the student, did they understand that PDM skills would be an important dimension on which they would be evaluated?

As the Methods section in the abstract conveys, this study had 3 groups: 1.) No PDM (Cell 2 ); 2.) PDM 4wks ago (Cell 3 & 4.) 3.) PDM 12 weeks ago (Cell 5). Yet the analysis doesn’t seem to reflect this. Shouldn’t Cell 3 & 4 be one group (PDM 4 wks ago)? Also in Cell 1, was there an IM rotation? If so, could that be combined with Cell 2?

Figure 2 & 3 should have better labels on the horizontal (No PDM – 4 wk PDM – 12 wk PDM – or something?). Otherwise the reader has to go back and figure out what Cell 1, 2, 3 & 4 represent to make sense of this.

When assigning subjects by pre-existing groups, there is always a confounding of the treatment and everything else that defines the group (ie – common clerkship experiences). This has led methodologist to suggest group be the unit of analysis. That is not possible here, but confounding needs to be considered here. I can understand that subjects may have been somewhat randomly assigned to groups, and to the degree this is not strictly true it may not be a major worry, however the group they belong to has other common group experiences, and that is where confounding comes in.

The Figures 2 and 3 on my copy are a bit confused. For instance Cell 3 doesn’t have a mean bar and the top and bottom confidence interval is missing.

When I look at these results I see the right side of Table 2 being most important (why don’t Ns agree on the left and right side? Why is N squared on the left side?)

No PDM = 15.2 – sd = 1.6 - n = 17
4 wk = 15.9 – sd = 1.55 - n = 23
12 wk = 14.7 – sd = 1.8 - n = 7

Above appears the most important summary of this research. There is about a .5 SD gain, but then after 12 weeks it shows a .33 SD loss. Given the small n for 12 week I am wondering if this condition should be deleted from the study. It appears to me that this research could be best presented with
one Table and one Graph with confidence intervals using just those 3 conditions for which you have adequate numbers.

I like this investigation and think the methodology should offer others instruction on how they might do useful research on these questions, but I think it needs to be reworked a bit. It should present just information for which there is some level of confidence and discuss the theoretical implication.