

Additional file 8. Top 5 most detrimental research misbehaviours on the aggregate level by academic rank

Top 5						
Academic rank, <i>M</i> (<i>SD</i>)						
PhD students			Postdocs & assistant professors		Associate & full professors	
#1	Insufficiently mentor or supervise junior coworkers	7.05 (3.76)	Insufficiently supervise or mentor junior coworkers	7.55 (3.75)	Let own convictions influence the conclusions substantially	6.74 (3.29)
#2	Give insufficient attention to the equipment, skills or expertise which are essential to perform the study	5.9 (3.41)	Choose a clearly inadequate research design or using evidently unsuitable measurement instruments	6.23 (3.1)	Insufficiently supervise or mentor junior coworkers	6.37 (3.65)
#3	Let own convictions influence the conclusions substantially	5.86 (3.17)	Let own convictions influence the conclusions substantially	6.11 (3.18)	Choose a clearly inadequate research design or using evidently unsuitable measurement instruments	6 (2.85)
#4	Choose a clearly inadequate research design or using evidently unsuitable measurement instruments	5.7 (3.44)	Not publish a valid ‘negative’ study	6 (3.62)	Not publish a valid ‘negative’ study	5.95 (3.57)
#5	Inadequately handle or store data or materials	5.64 (3.13)	Insufficiently report study flaws and limitations	5.83 (3.36)	Insufficiently report study flaws and limitations	5.94 (2.75)

M = mean score per subgroup, *SD* = standard deviation. Detrimental impact on the aggregate level was computed as the product score of frequency (1-3) and impact (1-5) and thus ranged from 1 to 15. The higher the mean score, the higher the perceived aggregate impact.