Exploring the Hidden **Disabilities of Mental Health** in the Chemistry Laboratory

Turns out, everyone's quite anxious in the lab anyway, and COVID-19 didn't help at all



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BACKGROUND

- Rising numbers of students with diagnosed or undiagnosed mental health conditions.
- Teaching labs are complex environments, with anxiety and confidence interrelated.

RESEARCH QUESTIONS

- Do a significant number of students have a formal or informal diagnosis of anxiety?
- What impact does this have on their perception of the chemistry lab?
- Did COVID-19 impact these perceptions due to lack of prior experience?

WHAT WE MEASURE

- Lab anxiety instrument administered before & after year 1
- Additional questions about anxiety diagnosis/self-diagnosis
- Self-assessed impact of pandemic on preparedness

PRELIMINARY RESULTS

• Self- or formal anxiety diagnosis makes things worse, may even affect perception of own experience

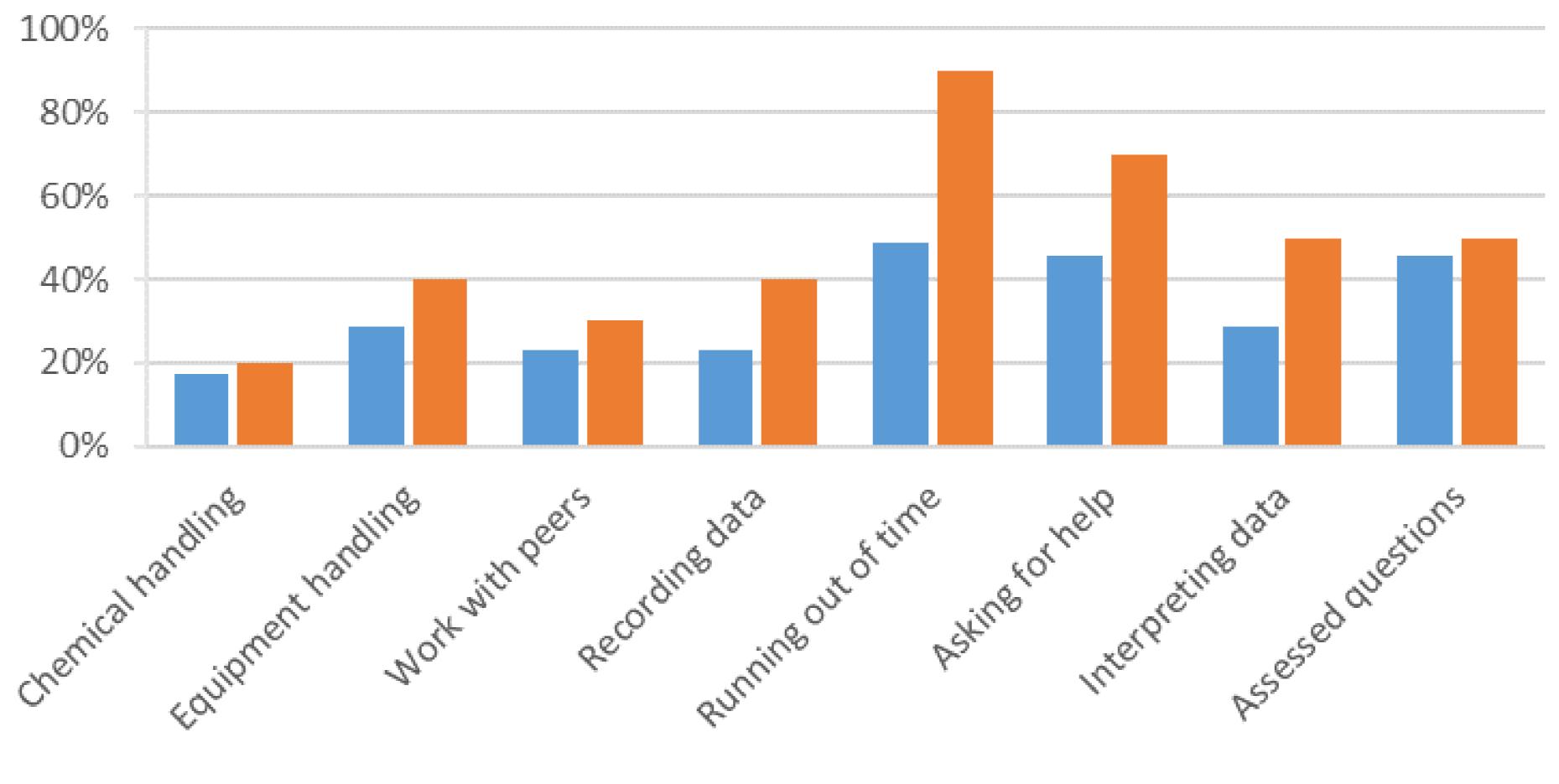
REFERENCES

- CW Bowen, Ed.& Psych. Meas. doi:10.1177/0013164499591012
- 2) D Spagnoli, Student Success doi:10.5204/ssj.v10i1.1104



Lab tasks elevate feelings of anxiety; having a formal diagnosis of anxiety amplifies this for some tasks

Prevalence of self-assessed anxiety while considering specific lab tasks



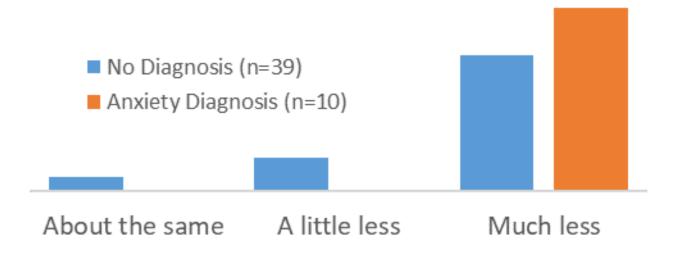
No Diagnosis (n=35)

Formal anxiety diagnosis (n=10)

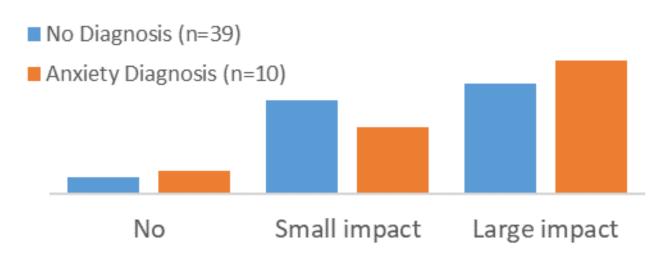
COVID-19 impact?

- Students also surveyed about the impact of COVID-19 with questions on preparedness and prior lab experience.
- Disproportionate perceptual impact on students with a formal anxiety diagnosis.

Do you feel that you've had less lab experience due to the pandemic?

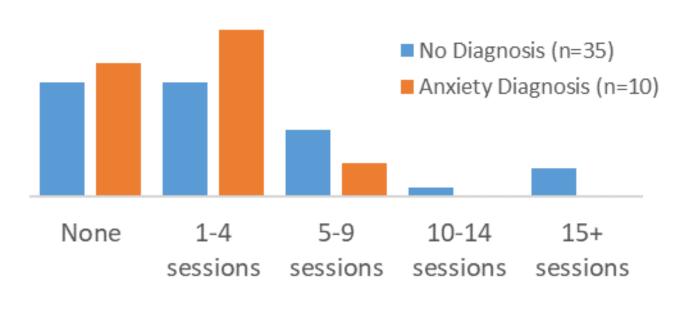


Are you concerned that this will impact your upcoming first year?



• Anxiety may even relate to how much lab experience was gained in the run-up to university

> How much lab experience have you had in the last 18 months?





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