Introduction
- Ranger is a small town dealing with a terrible water quality situation, and at times, excessive levels of lead.
- Citizens of this town are generally poor with many living below the poverty line.
- This is a common scenario and issue found in many places around the US.

Objective of the Study
- The primary aim was to investigate if the perception of lead in one’s drinking water can result in a direct raise in that person’s stress levels.

Methods
- Participants (n = 300) completed the 10-item Cohen’s Perceived Stress Scale (PSS) and a general survey on themselves and their water experience.
- The experimental group (n = 150) did this after being primed by reading a basic fact sheet on Ranger’s water and the health effects of lead exposure. The control group (n = 150) did not read this sheet.
- All participants were recruited and the surveys were completed in front of the local grocery store.

Results
- Total mean PSS = 19.54, sd = 7.55
  - Mean Exp PSS = 20.55, sd = 7.71
  - Mean Con PSS = 18.53, sd = 7.27
  - 2 sample t-test of PSS based on condition: p = 0.02, t = 2.33, df = 296.98, 95% CI = 0.32 – 3.72

Test 1
- Total mean habit change (HC) score was 3.63 on a 5 point scale
  - Mean PSS for HC > 3.63 = 20.73, sd = 7.66
  - Mean PSS for HC < 3.63 = 17.54, sd = 6.96
  - 2 sample t-test of PSS based on HC score greater or less than 3.63: p = 0.00026, t = 3.70, df = 251.23, 95% CI = 1.49 – 4.89

Test 2
- Total mean financial effect (FE) score was 3.71 on a 5 point scale
  - Mean PSS for FE > 3.71 = 20.47, sd = 7.82
  - Mean PSS for FE < 3.71 = 17.93, sd = 6.81
  - 2 sample t-test of PSS based on FE score greater or less than 3.71: p = 0.0035, t = 2.95, df = 253.57, 95% CI = 0.84 – 4.24

Discussion & Questions
- Shows that contaminated drinking water is not only a biological health issue, but also a mental health issue.
- As such, fixing substandard water infrastructures should become a higher prioritized issue.
- Future research should look into other contaminated water situations to show if the effect extends beyond lead as the perceived contaminant.

Conclusion
The perception of lead and impurities in drinking water can significantly raise one’s stress levels. I propose two aspects motivating this raise: 1) how much the person perceives that this issue is affecting them financially and 2) how much it changes their daily habits.

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