

# Resilience and the Art of Motorcycle Repair

Martin Maxwell

University of Colorado School of Medicine & Colorado State University

## Background

- Medical students face an immense amount of stress and pressure throughout medical education.
- Stress among medical students is associated with severe fatigue<sup>1</sup>, burnout<sup>2-4</sup>, decreased clinical and academic performance<sup>5-7</sup>, higher than typical perceived stress levels<sup>8</sup>, high levels of somatic distress<sup>9</sup>, increased use of unhealthy coping skills over time<sup>6</sup>, and higher levels of depression and anxiety.<sup>10</sup>
- Medical students were three times more likely to die of suicide than comparable individuals in the general population in 2019.<sup>11</sup>
- There are no metrics overall student mental health or ensuring low levels of burnout, depression, or suicide for medical institutions to maintain accreditation.
- Coping is a process used by everyone to deal with stress and involves engaging in specific behaviors or thoughts to manage the demands of difficult or dangerous situations and environments.<sup>12,13</sup>
- One of the ways medical schools can encourage healthy coping and build resilience is to create protected time for students to engage in activities of interest while finding ways to tie this to their scholarly work and earn credit.

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## Hypothesis

- By utilizing protected academic time to engage in the self-directed, active, and meaningful project of restoring a motorcycle, I will:
  - Experience an increased sense of wellbeing
  - Build resilience
  - Feel an increased sense of purpose
  - Earn academic credit
- I will accomplish these by engaging in creative scholarship while learning about the impacts of stress on medical students.



Fig 1: Yamaha Seca XJ750 at project start

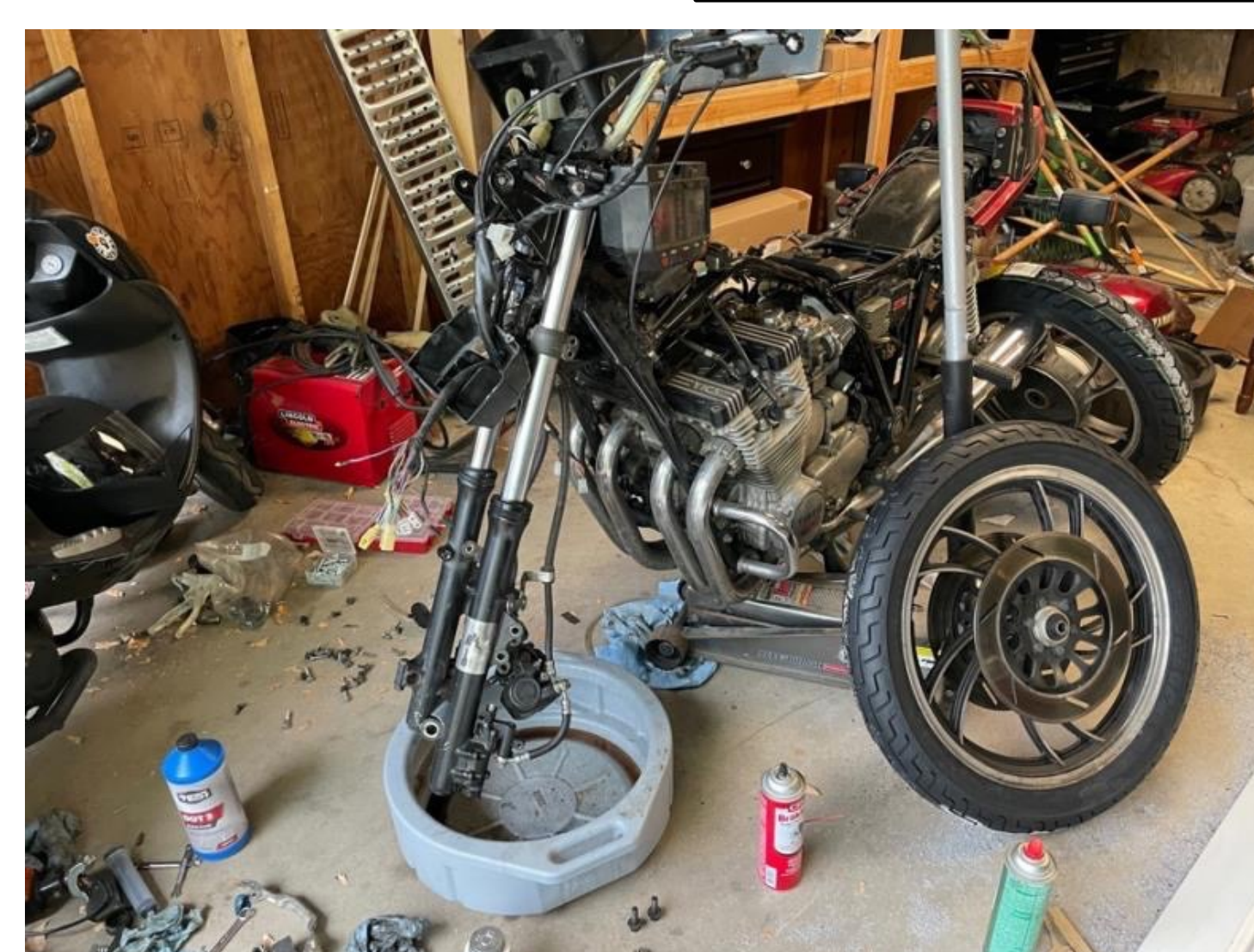


Fig 2: Brake replacement, hydraulic flush, and new tire installation

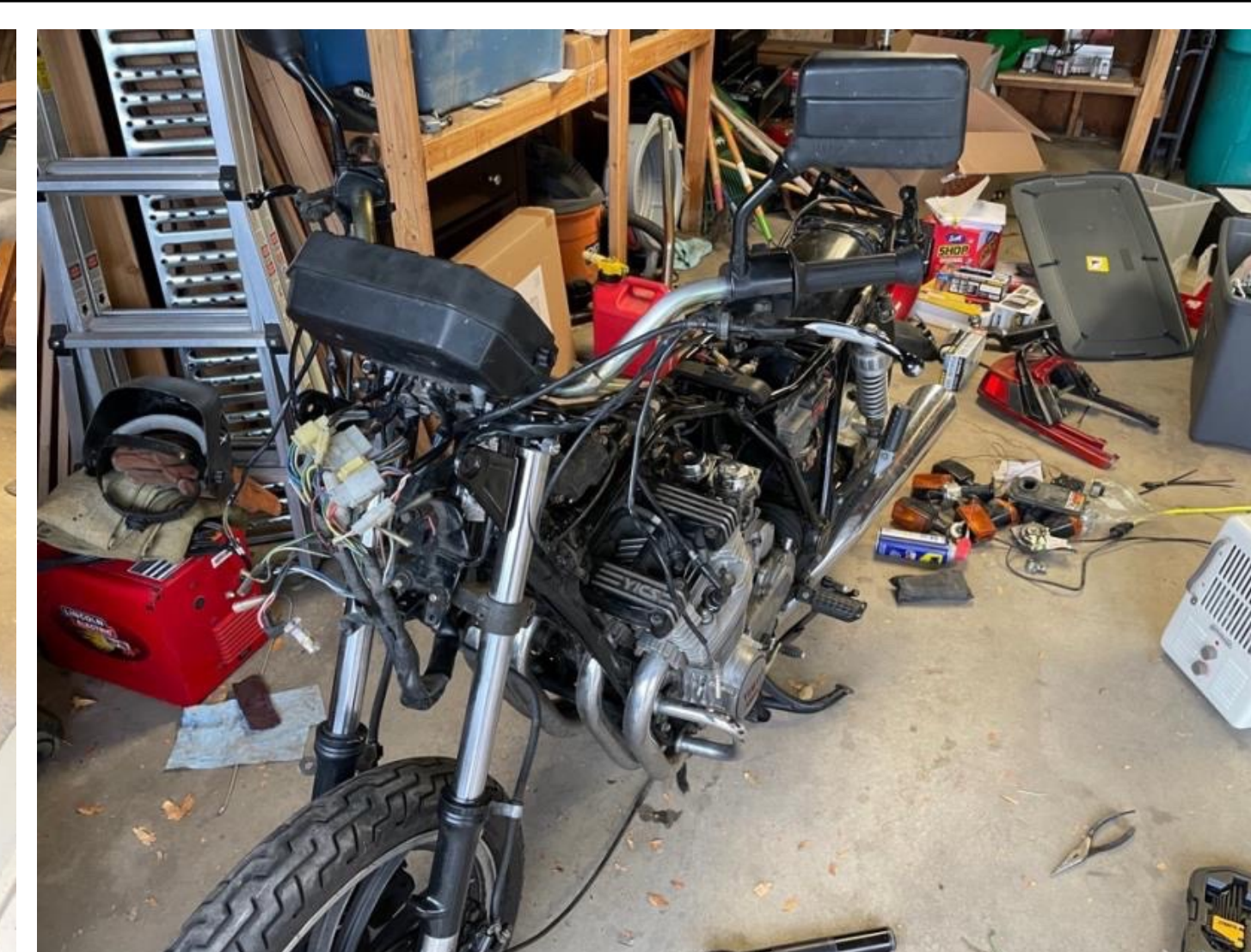


Fig 3: In process of rewiring the motorcycle's electrical system



Fig 4: Initial fuel tank test fitting



Fig 5: First full assembly and engine start



Fig 6: First ride, Horsetooth Reservoir

## Results

- Project spanned nearly 4 years.
- Restoration took roughly 6 months.
- Rode motorcycle for one summer before selling for a profit.
- Increased sense of wellbeing, peacefulness, and purpose.
- Learned valuable lessons in time management and creative scholarship.
- Earned academic credit through creative scholarship.
- Learned about stress and its impacts on medical students, and successfully engaged in a proof-of-concept project for healthy coping in medical education

## Conclusions

- Programs such as the Mentored Scholarly Activity (MSA) at the CU School of Medicine are a great way to foster creative scholarship among medical students.
- Despite the opportunity through MSA, the vast majority of students choose basic science research projects from pressure such as the "research arms race".<sup>16</sup>
- The MSA provides a scaffolding for medical schools to actively promote creative scholarship for the wellbeing of their students.
- These projects encourage creativity, bolster one's CV, and foster personal growth and resilience during medical education.

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## Disclosures

I have no disclosures to report