

Pill Crusher Re-Engineered

CHALLENGE

For patients with swallowing difficulties, crushing pills considered as a solution but most crushing devices have disadvantages such as safety, noise, and repetitive strain injuries.

PARTNER

St. Joseph's
Healthcare
Hamilton



The St. Joseph's Healthcare Hamilton Seniors Mental Health Service is a regional leader in the provision of evidence informed care and service to seniors with severe mental illness and the families, caregivers and providers who support them.

TEAM

- Ms. Shelley Wright, Nurse Manager, Senior Mental Health Program, SJHH
- Dr. Rashid Abu-Ghazalah, Assistant Professor, McMaster University
- Mahshad Nejati, M. Eng. Design
- Ramaswamy Krishnamoorthy, M. Eng. Manufacturing

MILESTONES & OUTCOME

- swallowing difficulties can result in medication non-adherence
- Pills are the dominant form of prescribed medicines
- Current crushing procedures can cause dosing inaccuracy
- Proposed solutions have the potential to be offered in other unmet markets

VALUE

The proposed solution not only minimizes the burden on healthcare professionals in medication administration, but also contributes to the quality of healthcare services.

NEXT STEPS

- To create functional prototypes
- Design improvements based on partner's feedback

STUDENT REFLECTION

- Design a product based on a real-world issue
- How to adapt to new circumstances in an unpredicted situation
- Develop communication skills within an interdisciplinary team

