Task Experience Improves Younger and Older Adults' Ability to Memorize Important Medication Information

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Background

- Older adults can show memory decrements when learning and remembering paired associations (e.g., shark: ocean; Naveh-Benjamin, 2000)
- This may be important for older adults' ability to remember medication information (e.g., Advil + Aspirin = bleeding)
- Value-directed remembering (VDR) occurs when learners remember high-value (e.g., severe side effects) over low-value (e.g., mild side effects) information (Knowlton & Castel, 2022; Friedman et al., 2015)
- Previous studies have shown older adults can prioritize remembering high-value information as well as younger adults (Murphy et al., 2023).

Experiment 1

- **How well do younger and older adults prioritize remembering severe over mild and moderate medication interactions?**

Experiment 2

- **How much task experience is necessary for younger and older adults to optimize learning drug interactions?**

Participants

Experiment 1

N = 120 via Prolific

- 60 Younger Adults (*M* = 25.80, *SD* = 4.93 years old)
- 60 Older Adults (*M* = 65.20, *SD* = 2.98 years old)

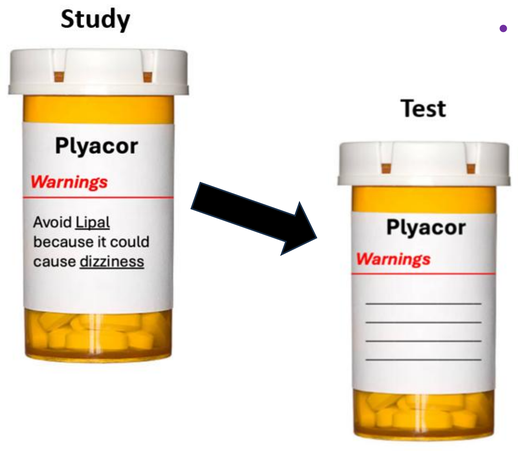
Experiment 2

N = 117 via Prolific

- 67 Younger Adults (*M* = 30.30, *SD* = 5.80 years old)
- 50 Older Adults (*M* = 66.50, *SD* = 5.21 years old)

Materials & Procedure

- 12 Medication Interactions
- Randomized order
- Counterbalanced



Experiment 1

3 Study + Test Trials: ST-ST-ST

Experiment 2

5 Study + Test Trials: ST-ST-ST-ST-ST

Results

Experiment 1

	Younger Adults	Older Adults
Health Knowledge*	*M* = 35.80 (*SD* = 4.54)	*M* = 37.90 (*SD* = 3.09)
Side Effect Knowledge Subscale*	*M* = 22.50 (*SD* = 4.68)	*M* = 24.20 (*SD* = 4.49)

* $p < .05$. There were no significant differences between age groups for the Side Effect Outcome Expectations Subscale or Medication Understanding and Use Self-efficacy Scale (MUSE).

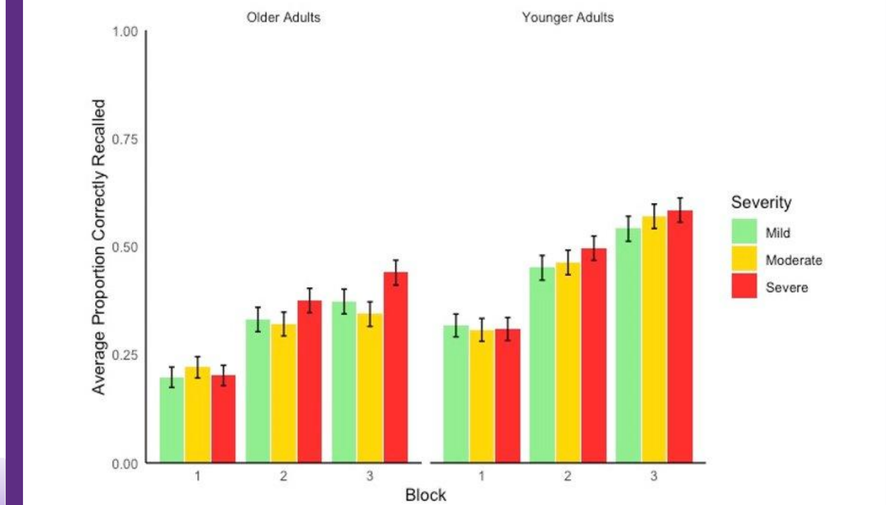
Experiment 2

There were no significant differences between age groups for:

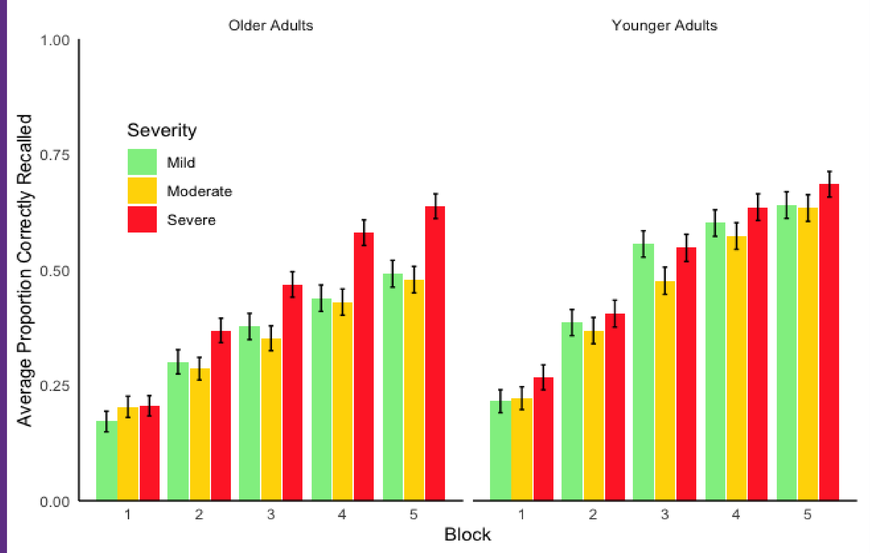
- Health Knowledge
- Side Effect Knowledge Subscale
- Side Effect Outcome Expectations Subscale
- Medication Understanding and Use Self-efficacy Scale

Results

Experiment 1



Experiment 2



Conclusions

- Younger adults recalled more than older adults in E1 and E2
- Both age groups remembered severe side effects over moderate and mild side effects, consistent with a value-directed remembering (E1 & E2)
- Older adults were better at prioritizing severe over moderate and mild side effects than younger adults in E2, but not in E1