



Improving Young and Older Adults' Memory for Medication Side Effects

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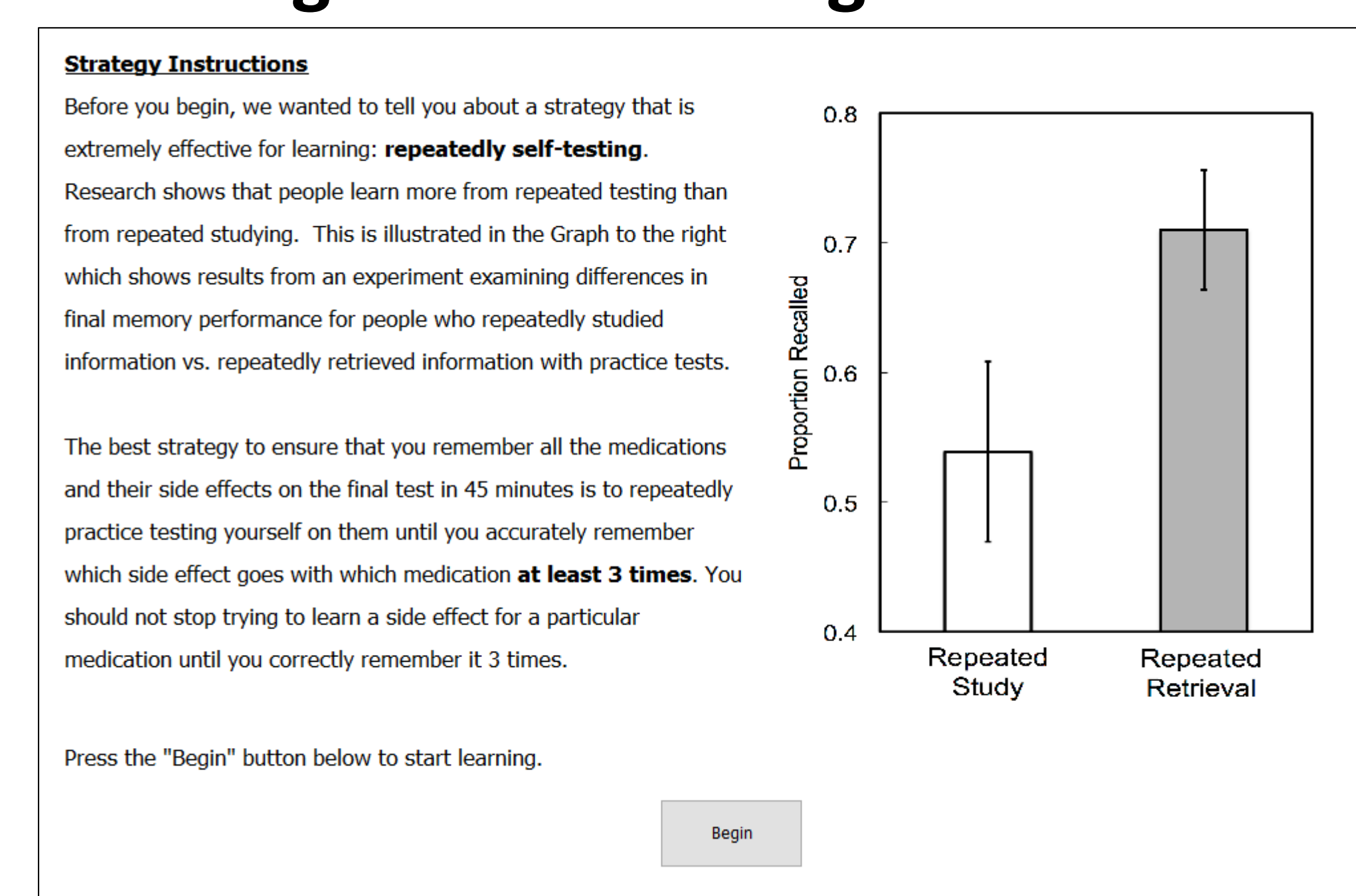


Introduction

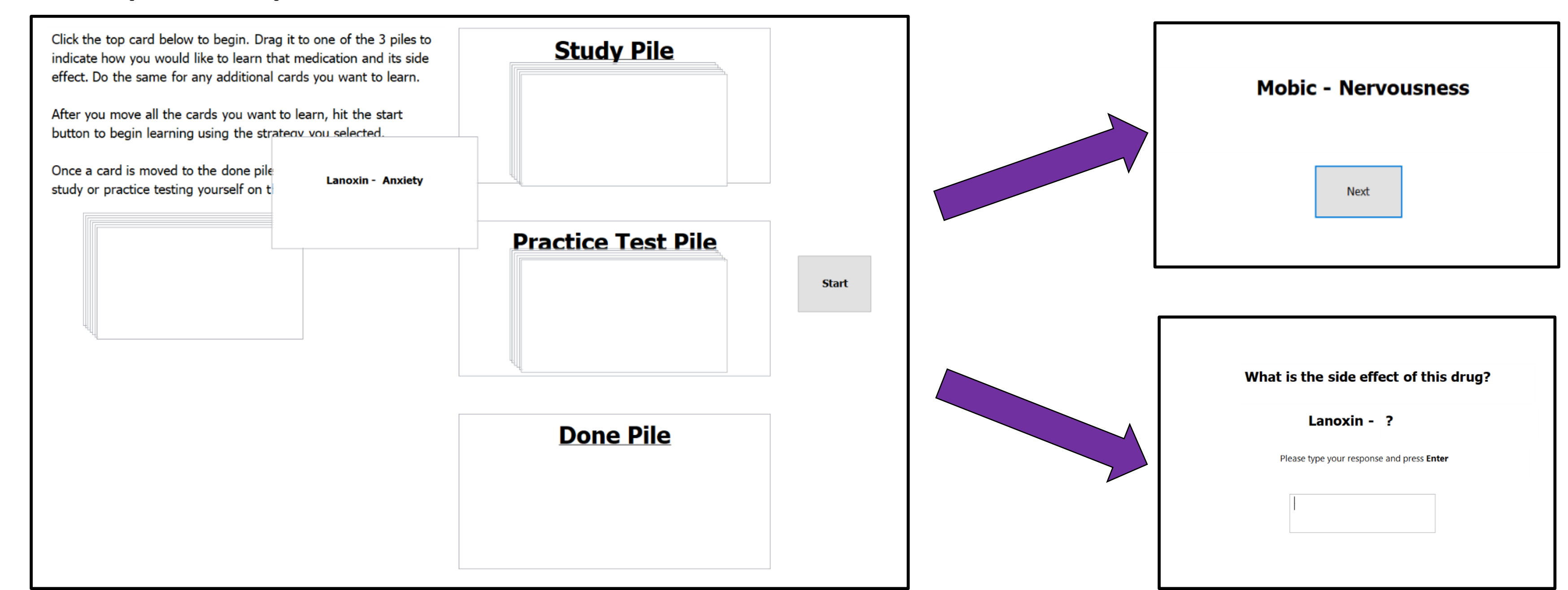
- Nearly half of older adults have a chronic condition, and more than half take 5 or more drugs concurrently (Qato et al., 2008).
- Unfortunately, 50% of older adults have medication adherence issues (Gellad, Grenard, & Marcum, 2011; WHO, 2015)
- Older adults avoid using memory-based strategies (Touren & Hertzog, 2004)
- However, a strategy intervention that provides retrieval practice instructions to learners can improve younger adults' self-regulated learning (Ariel & Karpicke, 2018)
- In the present study, we examined if a similar intervention could improve **older adults' self regulated learning** of important **health-related information**.
- We hypothesized that older adults who received the intervention promoting retrieval practice would perform significantly better on a test of **medication side effects** than would older adults who did not receive the intervention.

Materials & Procedure

- **Participants and Materials:**
 - 108 younger adults ($M = 20$, range = 18-26, 63% women) and 105 older adults ($M = 73$, range = 60-89, 70% women)
 - Studied a list of 20 medication-side effect pairs (e.g. *Lanoxin - Anxiety*) adapted from Friedman et al. (2015)
 - Manipulation: No strategy instructions vs. retrieval practice instructions modeled after Ariel and Karpicke (2018)
 - Retrieval practice instructions: You should recall the side effect of each medication successfully at least 3 times before you try to stop learning it!
- **Procedure:**
 - **Intervention or No Self-Regulated Learning Instructions**



The learning phase involved Study Blocks and Practice Test Blocks until participants move all the cards to the *Done Pile*.



Final Test

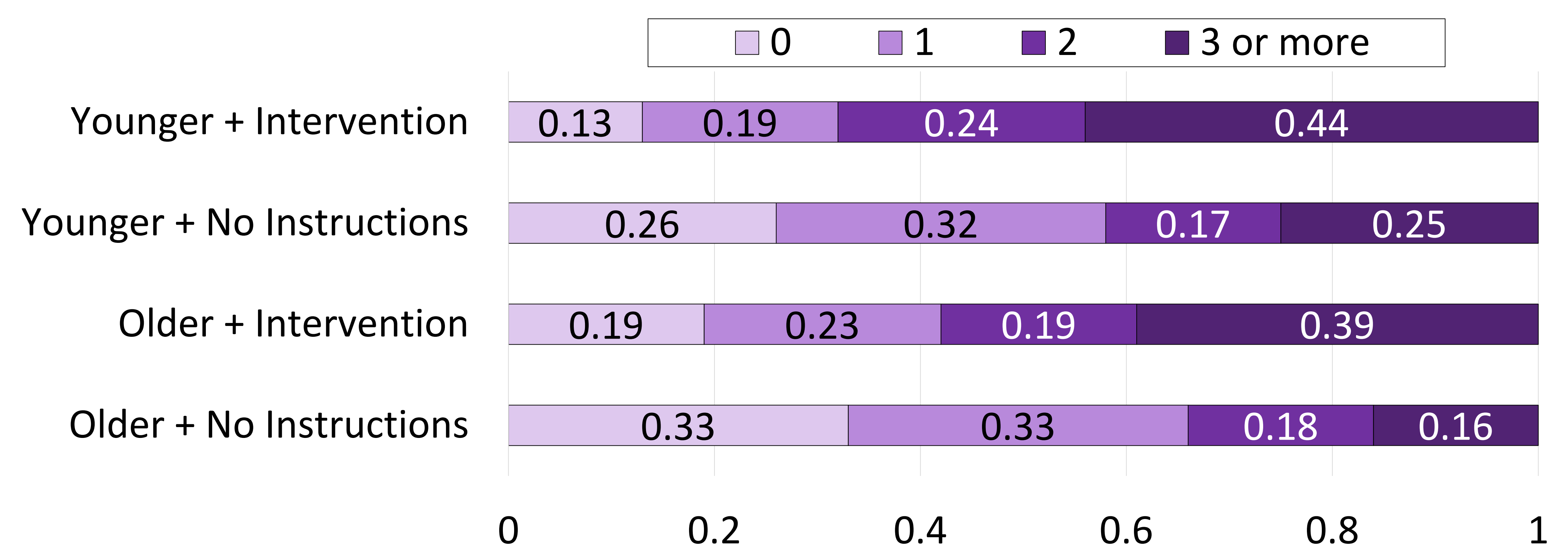
What is the side effect of this drug?

Lanoxin - ?

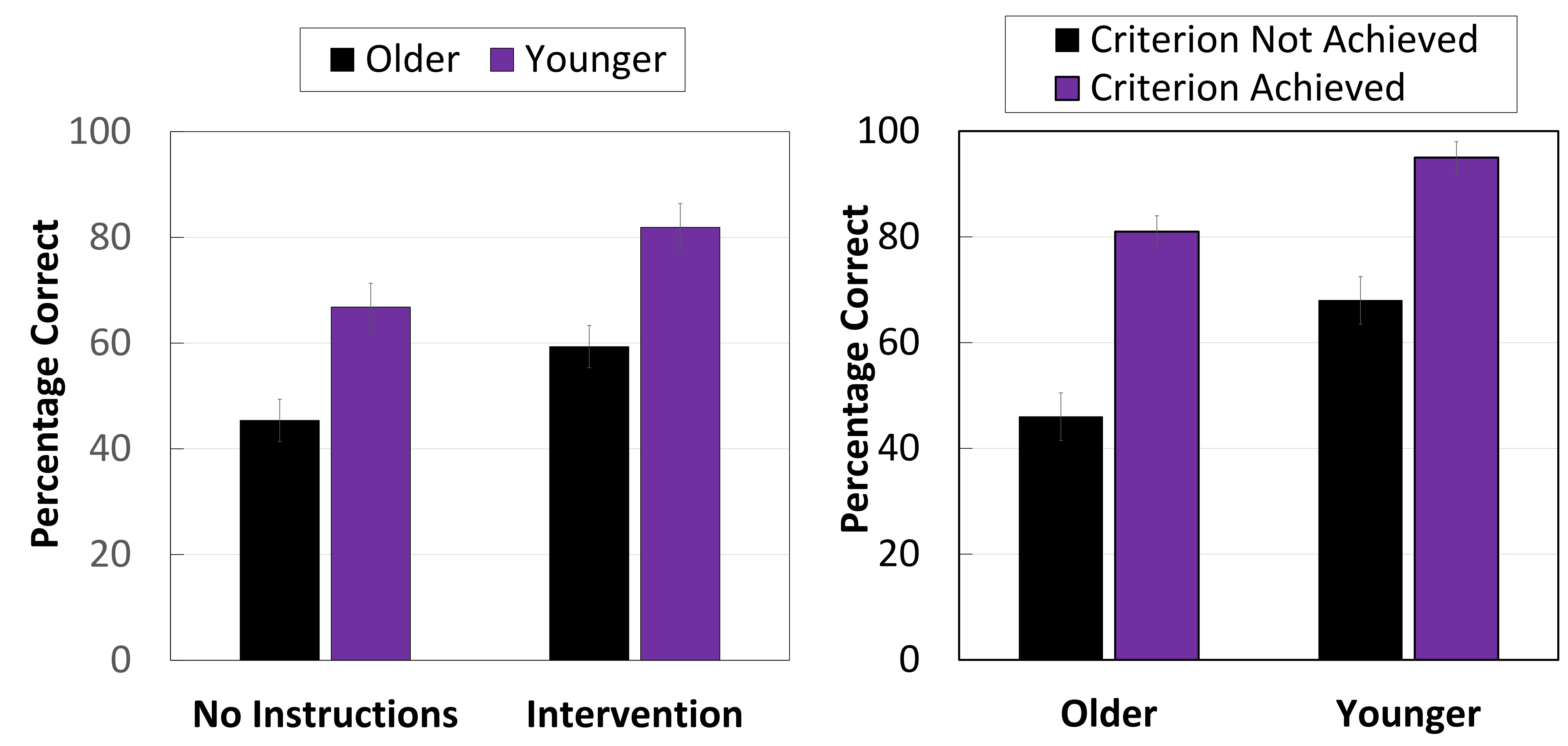
Please type your response and press Enter

Results

Mean Proportion of Items Recalled to Each Criterion



Final Test Performance



Discussion & Future Directions

- Younger and older adults made better study decisions following the retrieval practice intervention – the intervention enhanced self-regulated learning of medication side effects
- Importantly, the intervention improved final test performance for both age groups
- Reaching criterion (3 successful retrievals) was associated with better memory for side effects for both younger and older adults
- Future research should match the intervention with specific medications used by participants and measure health outcomes



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