

## Everyday Memory Errors in Healthy Adults Across the Lifespan: Results From an Online Survey

No matter how good our memory is, we are all prone to forget something at least occasionally, or experience memory errors when completing everyday tasks. For example, one may forget someone's name (retrospective memory error), why they came into a room (absent-minded error), or even miss an important appointment (prospective memory error). Generally, there is little information about how frequently these memory failures occur in daily life because most research has been focused on studying laboratory tasks of memory and attention. Moreover, previous questionnaire studies of everyday memory did not include all types of memory errors that may occur in daily life (i.e., prospective, retrospective, and absent-minded errors). It is also unclear how frequently people across the adult lifespan expect such everyday memory errors to occur in age groups other than their own.

To address these gaps in the current knowledge, researchers at the University of Hertfordshire developed a new everyday memory questionnaire encompassing all three types of everyday memory errors. The questions were created based on the real data collected from previous diary studies in which young and older individuals recorded memory errors every time they experienced them in their daily lives.

This new questionnaire was circulated on various social media platforms and several branches of the University of 3<sup>rd</sup> Age (U3A) for a period of 10 months between July 2020 and April 2021. Participants had to rate the frequency with which they experienced three different types of memory errors in their own life and then rate how frequently they expected people in their 20s, 40s, 60s and 80s to experience the same memory errors. In addition, participants completed questionnaires about their mood, business and demographic details.

For the first study aim, concerning the frequency of everyday memory errors across different age groups, responses from 773 participants were analysed. Participants were divided into five age groups. In addition to 194 young (aged 18-39) and 100 middle-aged (aged 40-49) adults, there were 158 older adults in their 60s (aged 60-69), 248 adults in their 70s (aged 70-79) and 73 adults in their 80s and 90s (aged 80-96). Results showed that whilst there was no age difference in the overall frequency of memory errors (regardless of the error type), young adults reported experiencing prospective memory errors (remembering to do something in the future) more often than any other age group. By contrast, participants in their 80s and 90s reported experiencing retrospective memory errors (for example, forgetting names, words, and so on) more frequently than any other age group. No age differences were found in the frequency of absent-minded errors. Surprisingly, all age groups indicated experiencing retrospective memory errors more frequently than the other types of errors, which contradicts the findings from diary studies,

showing that the most frequently reported memory errors, especially in young and middle-aged adults, are prospective memory errors.

For the second study aim regarding how people view memory functioning in others, the data from 695 participants were analysed. Results showed very strong stereotypical views towards memory and ageing. Irrespective of participants' own age, all participants believed that memory errors would be most frequently experienced by those in their 80s and least frequently by adults in their 20s. Such strong stereotypical views are surprising given the results of recent diary studies showing no significant age effects in the total number of recorded memory failures, and younger adults recording more frequent prospective memory failures than older adults.

In summary, this study showed that the newly developed questionnaire can assess the frequency of all three types of memory errors in everyday life (prospective, retrospective and absent-minded) across the adult lifespan, and can be used in the future clinical and research work on memory functioning in everyday life. Furthermore, this study confirmed that there still exist strong stereotypical views towards memory and ageing, which highlights the need to raise awareness on this matter in our society and reduce age-related stereotypes.

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