Extent of Smartphone and Application Utilization Among Individuals with Moderate to Severe Traumatic Brain Injury

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Background:

- Technology literacy in patients is paramount for delivery of high-quality telemedicine.
- Telemedicine can typically be completed through smartphones, therefore ensuring comfort with their use is essential.
- This study described smartphone utilization among individuals with moderate to severe traumatic brain injuries (TBI)

Design:

- Surveys were sent to patients from 8 sites participating in the TBI Model System.

Results:

- 472 participants completed the survey (response rate of 21%).
- Individuals ages 45 and older (n=286) were significantly less likely ($p<0.05$) to use their phones for the following functions (see Figure 1) compared to individuals ages 18-44 (n=286).
- There was an inverse association between number of smartphone applications used and the individual's age ($p<0.01$).

Conclusions:

- Older adults use smartphones less often than younger adults, which may indicate a lack of comfort or knowledge in older adults in terms of utilization.
- There may be bias due to electronic medium of survey, favoring participants who may be more active users of technology.
- Virtual telemedicine may be feasible, but providers should consider older patient's level of technology literacy.

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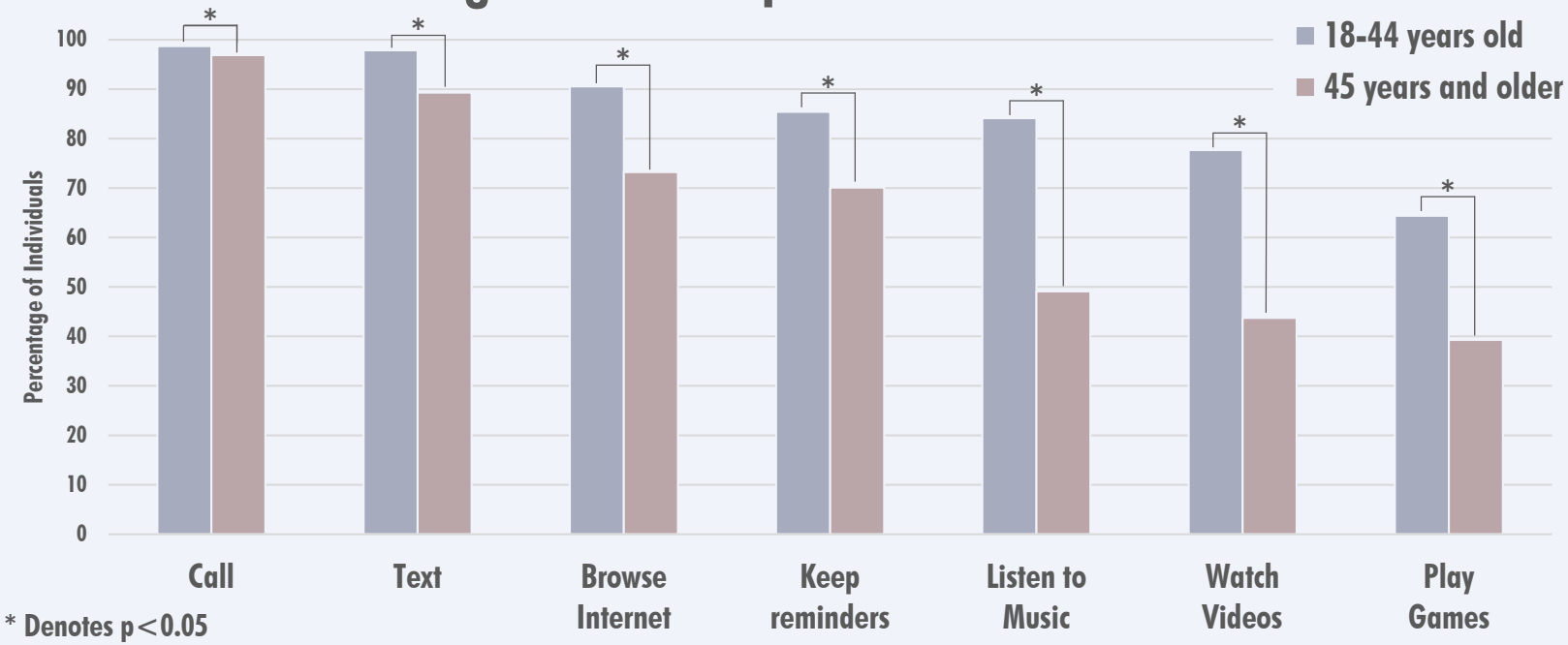
Providers should consider older patient's level of technology literacy to ensure optimal delivery of virtual telemedicine.

Figure 1: Smartphone Utilization



* Denotes $p<0.05$