

POSTER SESSION 1

Alberta Rating Index for Apps (ARIA): Helping older adults find acceptable mobile health apps

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Purpose There are more than 300,000 mobile health apps available through Google Play and iTunes (Research2Guidance, 2017). The efficacy of many health apps is unknown and may even be unsafe for end-users (Donker et al., 2013). Further, the privacy and security of users' personal data gathered by commercial mobile health apps are not protected by privacy legislation. It is challenging for patients, family caregivers, and mental healthcare providers to assess the quality of apps. Existing app quality rating scales are complex and do not cover all relevant features. We created the Alberta Rating Index for Apps (ARIA) for end users to identify apps that demonstrate acceptable or high quality based on a set of validated criteria. The objective of this study was to determine the inter-rater reliability of this new index, with a focus on mental health apps. **Methods** Four occupational therapists, four older adults, and four adults living with mental health conditions used 11 mental health mobile apps until they became familiar with all features of the apps. Next, they rated each app twice: once using ARIA and once with the user version of Mobile Applications Rating Scale (U-MARS), a less comprehensive and more complex counterpart, to rate the quality of mobile health apps. A one facet generalizability study (i.e., Apps x Raters) was completed using ARIA total scores of each group of raters. A generalizability co-efficient (G) (Brennan, 2011) was calculated as a measure of inter-rater reliability. ARIA total scores were then correlated against the total scores of U-MARS to examine criterion-related validity. **Results and Discussion** The G-coefficients ARIA were 0.95 for occupational therapists, 0.83 for older adults, and 0.88 for adults living with mental health conditions. The results indicated the ARIA has a high inter-rater reliability. The correlation of total scores of ARIA and U-MARS was moderate among occupational therapists ($r=0.5$) and adults with mental health conditions ($r=0.4$), and low but positive in older adults ($r=0.13$). The results of the validity study suggest that older adults used the U-MARS and ARIA to measure separate constructs.

References

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