Optimizing CBTi for digital delivery – a user centered acceptability and preference study

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Chronic insomnia affects ten percent of Americans. Cognitive behavioral therapy for insomnia (CBTi) is the recommended first-line treatment¹, but access to CBTi specialists is limited². Digital therapeutics (DTx) offer the potential to provide CBTi at scale that matches the need. While in-person CBTi is typically delivered in longer sessions, DTx can provide CBTi content flexibly and in shorter sessions. This study focuses on the user-perspective regarding session length, to understand optimal DTx CBTi delivery.

In this two-week longitudinal cross-over study 60 adults (>22 years) were randomized to receive iCBT content either in 10-minute assignments for five days (short form: SF) or in one 50-minute assignment (long form: LF) for a week, before crossing over to the other delivery format for additional CBTi content in the second week. Participants rated the formats regarding overall preference, acceptability, and completed quizzes on the material. Overall, SF was preferred by 76.7% of respondents, which was significantly higher than preference for the LF (χ²(1, N=60)=30.77, p < 0.001).

Participants rated the SF as significantly more engaging, while the LF was perceived overwhelming and more difficult to complete. Material recall and comprehension were not significantly different in week 1, but a trend favoring SF emerged in week 2. Both formats were perceived as helpful for managing insomnia.

Findings suggest that adults with insomnia prefer shorter chunks more frequent delivery of CBTi in a DTx. This may present an advantage of DTx over traditional face-to-face CBTi. Future research should verify if daily, short content improves treatment outcomes.