Executive summary

Digital interventions to reduce alcohol-related harm: a rapid horizon-scanning review

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Key findings

- Most digital interventions have been evaluated with randomized controlled trials, and there is a need to use alternative research methods to evaluate them.

- Populations that are most at risk of alcohol-related harm have been understudied.

- Digital interventions are increasingly delivered via the internet and smartphone apps, sometimes in combination with biosensors.

- Alcohol reduction apps available in the app stores are increasingly using interactive features.

Research team

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Background

Digital interventions are defined as those that are delivered through a computer or mobile device such as a laptop, mobile phone or tablet. For example, mobile phone text-message (SMS) interventions, computer-delivered interventions administered on fixed computers or remotely via the internet, and mobile phone applications ('apps'). Although this literature has been subjected to a number of systematic and narrative reviews, this is an active research field characterised by rapid technological advances. Horizon scanning methods are needed to identify trends and notable gaps in this literature.

Methods

We conducted a rapid horizon scanning review of the published and grey literature on digital interventions to reduce alcohol-related harm covering the period January 2017 to April 2019. We had three broad aims:

1. To identify and describe innovations and newly emerging digital interventions that can be used to reduce alcohol-related harm.
2. To consider how these compare with existing digital interventions.
3. To identify potential gaps in the types of digital interventions that are being developed or subjected to rigorous evaluation.

Findings

1. There are many randomized controlled trials of digital interventions (at least 72 published between 2017 and 2019), but relatively few studies have used other methods to evaluate those interventions.
2. Populations that are most at risk of alcohol-related harm have been understudied relative to community-dwelling and student populations.
3. There were notable recent trends for digital interventions to be increasingly delivered via the internet and smartphone apps, sometimes in combination with biosensors, and for interventions for delivery in clinical and primary prevention settings.
4. Alcohol reduction apps available on the app stores may increasingly be using interactive features rather than simply providing information.

Implications

It is important to develop and evaluate digital interventions for populations that are most at risk of alcohol-related harm and use a range of research methods to evaluate newly emerging digital technologies. It is also important to ensure that the features of effective digital interventions are identified and consider how these might differ depending on the population that is receiving the intervention.

Conclusion

Research into digital interventions to reduce alcohol-related harm is burgeoning, and characterised by rapid methodological and technological developments. We identified the features of these interventions and considered how they are evolving, in order to identify gaps in the types of interventions that are being developed and evaluated. Given the speed of development in this field there is a need to keep the evidence base regularly updated.