Background Mobile apps offer a potentially effective approach to support healthier food behaviours if adequately designed and informed by behaviour change theory. Individuals from a lower socioeconomic background often report unhealthier dietary patterns and consequently may benefit from a mobile app intervention supporting healthier food behaviours. However, there is limited evidence available on the use of mobile health apps in this group. Previous work suggests that a reasonable standard of health and nutrition literacy is required for effective use of existing healthy eating mobile apps but this knowledge is often low in those from a lower socioeconomic background. Consequently, it is unclear if existing mobile apps are appropriate for this population group. The aim of this study is to explore the experiences of women from a lower socioeconomic background when using healthy eating mobile apps and the individual-level and mobile-specific factors that influence their experiences.

Methods A purposive sample of 15 women from a lower socioeconomic background and aged between 18–50 years were selected to participate. Participants completed a questionnaire assessing nutrition knowledge before using the assigned mobile apps. A total of three mobile apps were assessed in this study and were of varying quality in relation to nutrition content, behaviour change and user quality. Each participant was assigned to use two different mobile apps and used each for a one-week period. Semi-structured interviews were conducted with participants to discuss their experiences. Interviews were audio-recorded, transcribed verbatim, and analysed using a thematic analysis approach.

Results Preliminary analysis suggests that overall mobile app quality is adequate but there is a need to improve the customisability of mobile apps to ensure they fit users’ needs. The food lives of participants vary and mobile apps need to be flexible to reflect this variety for integration of mobile apps into everyday life. The language used in a mobile app was a reason for discontinuing use as it was not clearly understood by users or was viewed as irrelevant.

Conclusion Existing mobile apps may support healthier food behaviours in women from a lower socioeconomic background but changes in design may be required. A user-centred approach is recommended where users from a lower socioeconomic background are engaged at all stages of the design process. This may improve their relevance to this population group and increase their effectiveness in supporting healthier food behaviours.