Multimedia Appendix 3: Summary of the risk of bias appraisal for the studies pertaining to Objective 1

Article	Risk of Bias	Risk of Bias assessment	Comments
Kim et al[31]	Cochrane Risk of Bias 2.0 Tool for Randomised trials	Low risk of bias	
Lakshminarayana et al[32]	Cochrane Risk of Bias 2.0 Tool for Randomised trials	Low risk of bias	
Whiteley et al[33]	Cochrane Risk of Bias 2.0 Tool for Randomised trials	Some concerns	Although the aim was to examine the effects of the intervention, the total cohort results were not provided, indicating a risk of selective reporting. A significant result in the subgroup analysis. (Nonsignificant results for the whole cohort and the self-report medication adherence outcomes in the subgroup analysis were not reported in the abstract.
de Oliveira et al[35]	ROBINS-I	Low risk of bias	
Wiecek et al[34]	ROBINS-I	Serious risk of bias	Potential relationship between inactive use of app and medication nonadherence as adherence was monitored via the app. Retrospective classification of subjects based on duration of available app data of 3 months and 6 months and excluding any participants with < 30% active use of app. The number of recruited participants not eligible or dropped out due to < 30% active use of app were not reported for both cohorts and potential for participants with 6 months data with < 30% active use and high adherence usage for the first 3 months to be included in the 3-month analysis. The study results may be valid for patients who are adherent to the app but cannot be generalised to all app users.