List of Supplements:

Supplement 1: PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	0
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	NA
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	2-3
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	3
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	3
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	4
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	4, S2
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	4-5, S3
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	5
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	5
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	5
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	6-7
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	6
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	6
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	6
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	6
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	6
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	5-6
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	NA
Reporting bias	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	NA

Section and Topic	Item #	Checklist item	Location where item is reported
assessment			
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	7
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	7-8, S2
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	S2
Study characteristics	17	Cite each included study and present its characteristics.	Table 1
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	S4
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Figure 1
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	S4, S6
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Figure 1, S5
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	S4, S6
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	NA
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	S4
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	S6
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	14
	23b	Discuss any limitations of the evidence included in the review.	14-16
	23c	Discuss any limitations of the review processes used.	16
	23d	Discuss implications of the results for practice, policy, and future research.	16-17
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	1, 3
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	3
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	NA
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	18
Competing interests	26	Declare any competing interests of review authors.	18
Availability of data, code and other	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	18

Section and Topic	Item #	Checklist item	Location where item is reported
materials			

Supplement 2: Electronic databases and search strategy

The main search was performed in three blocks based on key words related to "Population" (block 1), "Digital intervention" (block 2), and "Type of study" (block 3). Since possible subject headings varied for the different databases, we customized keyterms according to the database. Within each block, the subject headings and free text terms were connected by OR, and the three blocks were connected by AND (see table below).
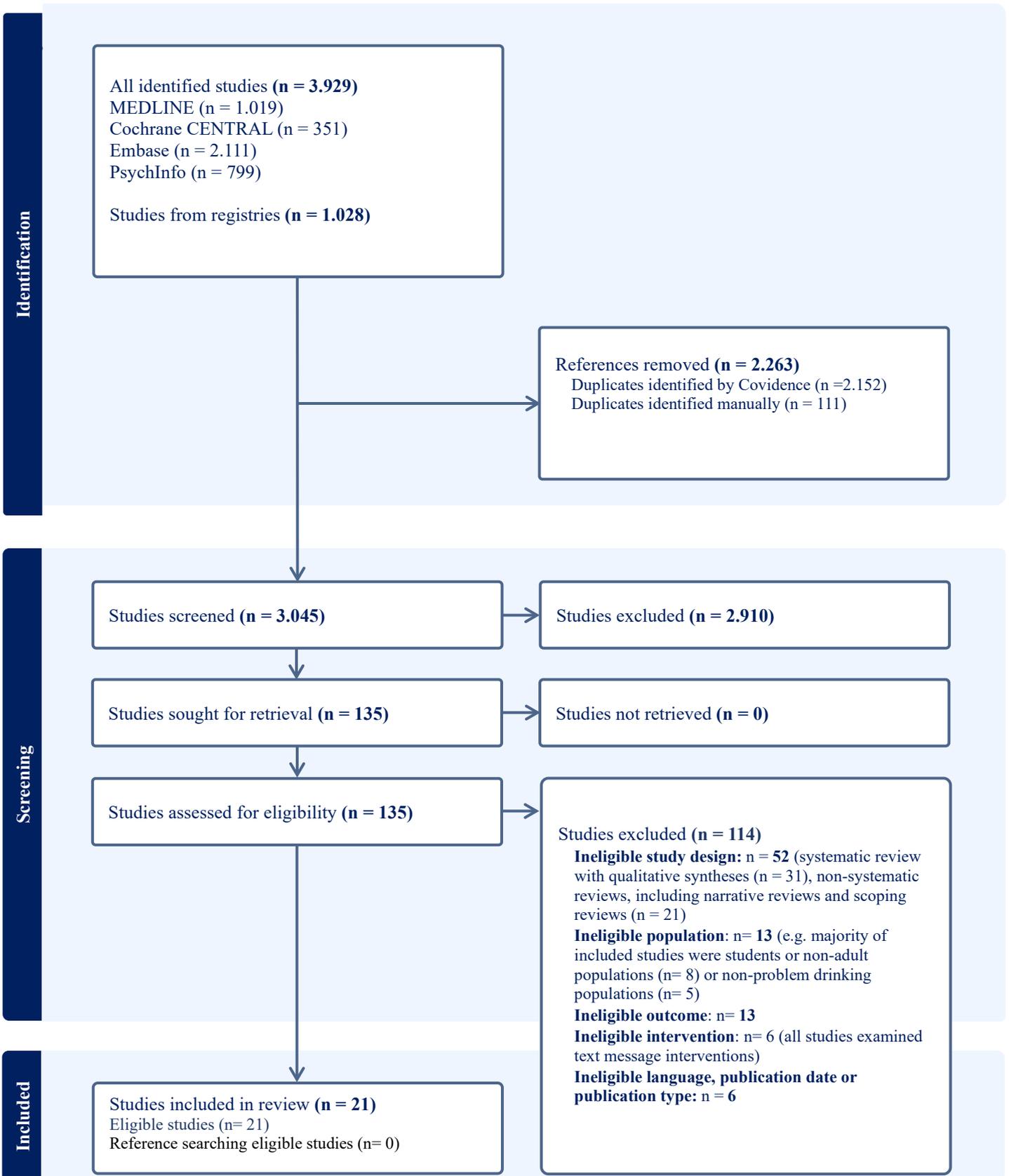
Block	Database		
	MEDLINE (via Ovid)	Embase (via Ovid)	PsycInfo
1	1 substance-related disorders/ or alcohol-related disorders/ or alcohol-induced disorders/ or alcoholic intoxication/ or alcoholism/ or binge drinking/ 2 drinking behavior/ or alcohol drinking/ 3 Behavior, Addictive/ 4 Alcoholics/ 5 (substance-related disorder* or alcohol-related disorder* or alcohol-induced disorder* or alcohol intoxicat* or alcoholism or binge drink* or drinking behavio?r* or alcohol drinking or addictive behavio?r* or alcoholic*).mp. 6 ("alcohol use disorder" or "alcohol use*" or alcohol abus* or "substance use disorder*" or addictive disorder* or drug abus* or drug dependen*).mp. 7 (problem* drinking or hazard* drinking or excess* drinking or harmful drinking or heavy drinking or alcohol addic* or alcohol misus* or alcohol consum* or alcohol dependen*).mp. 8 (alcohol$ adj2 (drink* or intoxicat* or use* or abus* or misus* or risk* or consum* or excess*)).mp. 9 (drink* adj2 (excess or heavy or heavily or harm or harmful or hazard* or binge or problem*)).mp. 10 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9	1 alcoholism/ 2 drug dependence/ 3 alcohol abuse/ or drug abuse/ or binge drinking/ or heavy drinking/ 4 alcohol consumption/ or "substance use"/ 5 drinking behavior/ 6 alcohol intoxication/ 7 addiction/ 8 ("alcohol use disorder*" or alcohol abus* or "alcohol use*" or alcohol intoxificat* or binge drink* or drinking behavio?r or "substance use disorder*" or substance-related disorder* or addictive disorder* or addictive behavio?r* or drug abus* or drug dependen* or alcoholism or alcohol drinking or problem* drinking or hazard* drinking or excess* drinking or harmful drinking or heavy drinking or alcohol addict* or alcohol misus* or alcohol consum* or alcohol dependen* or alcoholic* or alcohol-induced disorder* or alcohol-related disorder).mp. 9 (alcohol* adj2 (drink* or intoxicat* or use* or abus* or misus* or risk* or consum* or excess*)).mp. 10 (drink* adj2 (excess or heavy or heavily or harm or harmful or hazard* or binge or problem*)).mp.	1 "alcohol use disorder"/ 2 Alcohol Abuse/ 3 alcohol intoxication/ 4 "alcohol use"/ 5 Binge Drinking/ 6 drinking behavior/ 7 "substance use disorder"/ 8 "Substance Related and Addictive Disorders"/ 9 Drug Abuse/ 10 Drug Dependency/ 11 Alcoholism/ or Addiction/ 12 ("alcohol use disorder*" or alcohol abus* or "alcohol use*" or alcohol intoxificat* or binge drink* or drinking behavio?r or "substance use disorder*" or substance-related disorder* or addictive disorder* or addictive behavio?r* or drug abus* or drug dependen* or alcoholism or alcohol drinking or problem* drinking or hazard* drinking or excess* drinking or harmful drinking or heavy drinking or alcohol addict* or alcohol misus* or alcohol consum* or alcohol dependen* or alcoholic* or alcohol-induced disorder* or alcohol-related disorder*).mp. 13 (alcohol* adj2 (drink* or intoxicat* or use* or abus* or misus* or risk* or consum* or excess*)).mp.

		11 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10	14 (drink* adj2 (excess or heavy or heavily or harm or harmful or hazard* or binge or problem*)).mp. 15 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14
2	11 Computer-Assisted Instruction/ 12 Telemedicine/ 13 Internet/ 14 Internet-Based Intervention/ 15 Social Media/ 16 Computers/ 17 Therapy, Computer-Assisted/ 18 Digital Technology/ 19 Mobile Applications/ 20 Smartphone/ 21 Cell Phone/ 22 Text Messaging/ 23 Computer-Assisted Instruction/ 24 (computer-assisted Instruction or telemedicine or Internet or Internet-based intervention* or social media or computer* or computer-assisted therap* or digital tecnolog* or mobile application* or smartphone* or cell phone* or text messag*).mp. 25 (digital intervention* or electronic health service* or telehealth or telepsychology or online therap* or computer-mediated communication or computer application* or mobile health or mobile device* or mobile technolog* or mobile phone or "smartphone use" or website* or digital mental health resources or digital computer* or tablet computer* or laptop computer* or digital treatment* or internet-based treatment* or web-based treatment* or web-based intervention* or cybercounsel?ing or teletherapy or e-Health or ehealth or	12 digital technology/ 13 telemedicine/ or telehealth/ 14 telepsychology/ 15 web-based intervention/ or internet/ 16 computer assisted therapy/ 17 mobile health application/ or mobile application/ or self-care software/ 18 mobile application/ 19 mobile phone/ or smartphone/ 20 text messaging/ 21 social media/ 22 digital computer/ or computer/ 23 tablet computer/ or personal computer/ 24 laptop/ 25 (digital intervention* or electronic health service* or telemedicine or telepsychology or online therap* or computer-assisted instruction or computer-mediated communication or computer assisted therap* or computer application* or digital technolog* or mobile health or mobile application* or mobile device* or mobile technolog* or cell phone* or smartphone* or mobile phone* or "smartphone use" or text messag* or website* or digital mental health resources or Internet or social media or digital computer* or computer* or tablet computer* or laptop computer* or digital treatment* or internet-based treatment* or internet-based intervention* or web-based treatment or web-based intervention* or cybercounsel?ing or teletherapy or e-Health or ehealth or electronic health or m-Health or mhealth or virtual health or digital health	16 Digital Interventions/ 17 Electronic Health Services/ 18 Telemedicine/ 19 Telepsychology/ 20 Online Therapy/ 21 Computer Mediated Communication/ 22 Computer Assisted Therapy/ 23 Computer Assisted Therapy/ 24 Computer Applications/ 25 Digital Technology/ 26 Mobile Health/ 27 Mobile Applications/ 28 Mobile Devices/ 29 Mobile Technology/ 30 Smartphones/ 31 Mobile Phones/ 32 Text Messaging/ 33 Websites/ 34 Digital Mental Health Resources/ 35 Internet/ 36 Social Media/ 37 Digital Computers/ 38 Computers/ 39 Tablet Computers/ 40 Laptop Computers/ 41 (digital intervention* or electronic health service* or telemedicine or telehealth or telepsychology or online therap* or computer-assisted instruction or computer-mediated communication or computer assisted therap* or computer application* or digital technolog* or mobile health or mobile application* or mobile device* or mobile technolog* or cell phone* or

	electronic health or m-Health or m-health or virtual health or digital health or technological aid? or e-BI or e-SBI or self-care software).mp. 26 ((email* or e-mail* or electronic mail* or text messag* or SMS or MMS or phone? or cellphone? or cell-phone? or smartphone? or smart-phone? or digital tablet? or pda or personal digital assistant? or social media or social networking or facebook or twitter or skyp$ or app?) adj3 (deliver* or generat* or based or provid* or facilitat* or support* or treatment? or therap* or intervention? or program* or feedback)).mp. 27 ((Internet* or electronic* or digital* or technolog* or online or on-line or computer* or laptop? software or web* or weblog* or blog* or CD? or CD-ROM?) adj3 (deliver* or generat* or based or provid* or facilitat* or support* or treatment? or therap* or intervention? or program* or feedback)).mp. 28 11 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27	or technological aid? or e-BI or e-SBI or self-care software).mp. 26 ((email* or e-mail* or electronic mail* or text messag* or SMS or MMS or phone? or cellphone? or cell-phone? or smartphone? or smart-phone? or digital tablet? or pda or personal digital assistant? or social media or social networking or facebook or twitter or skyp$ or app?) adj3 (deliver* or generat* or based or provid* or facilitat* or support* or treatment? or therap* or intervention? or program* or feedback)).mp. 27 ((Internet* or electronic* or digital* or technolog* or online or on-line or computer* or laptop? software or web* or weblog* or blog* or CD? or CD-ROM?) adj3 (deliver* or generat* or based or provid* or facilitat* or support* or treatment? or therap* or intervention? or program* or feedback)).mp. 28 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27	smartphone* or mobile phone* or "smartphone use" or text messag* or website* or digital mental health resources or Internet or social media or digital computer* or computer* or tablet computer* or laptop computer* or digital treatment* or internet-based treatment* or internet-based intervention* or web-based treatment or web-based intervention* or cybercounsel?ing or teletherapy or e-Health or ehealth or electronic health or m-Health or mhealth or virtual health or digital health or technological aid? or e-BI or e-SBI or self-care software).mp. 42 ((email* or e-mail* or electronic mail* or text messag* or SMS or MMS or phone? or cellphone? or cell-phone? or smartphone? or smart-phone? or digital tablet? or pda or personal digital assistant? or social media or social networking or facebook or twitter or skyp$ or app?) adj3 (deliver* or generat* or based or provid* or facilitat* or support* or treatment? or therap* or intervention? or program* or feedback)).mp. 43 ((Internet* or electronic* or digital* or technolog* or online or on-line or computer* or laptop? software or web* or weblog* or blog* or CD? or CD-ROM?) adj3 (deliver* or generat* or based or provid* or facilitat* or support* or treatment? or therap* or intervention? or program* or feedback)).mp. 44 16 or 17 or or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43
3	29 (systematic review or meta-analysis).pt.	29 (systematic review or meta-analysis).pt. 30 meta analysis/	45 (systematic review or meta-analysis).pt. 46 Meta Analysis/

30 "systematic review"/ 31 meta-analysis/ 32 (meta-analy* or metaanaly* or systematic review* or network meta-analy* or network metaanaly*).mp. 33 ((systematic* adj3 (review* or overview*)) or (methodologic* adj3 (review* or overview*))).mp. 34 ((quantitative adj3 (review* or overview* or synthes*)) or (research adj3 (integrati* or overview*))).mp. 35 ((integrative adj3 (review* or overview*)) or (collaborative adj3 (review* or overview*)) or (pool* adj3 analy*)).mp. 36 (data synthes* or data extraction* or data abstraction*).mp. 37 (meta regression* or metaregression*).mp. 38 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38	31 "systematic review"/ 32 network meta-analysis/ 33 (meta-analy* or metaanaly* or systematic review* or network meta-analy* or network metaanaly*).mp. 34 ((systematic* adj3 (review* or overview*)) or (methodologic* adj3 (review* or overview*))).mp. 35 ((quantitative adj3 (review* or overview* or synthes*)) or (research adj3 (integrati* or overview*))).mp. 36 ((integrative adj3 (review* or overview*)) or (collaborative adj3 (review* or overview*)) or (pool* adj3 analy*)).mp. 37 (data synthes* or data extraction* or data abstraction*).mp. 38 (meta regression* or metaregression*).mp. 39 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38	47 "Systematic Review"/ 48 (meta-analy* or metaanaly* or systematic review* or network meta-analy* or network metaanaly*).mp. 49 ((systematic* adj3 (review* or overview*)) or (methodologic* adj3 (review* or overview*))).mp. 50 ((quantitative adj3 (review* or overview* or synthes*)) or (research adj3 (integrati* or overview*))).mp. 51 ((integrative adj3 (review* or overview*)) or (collaborative adj3 (review* or overview*)) or (pool* adj3 analy*)).mp. 52 (data synthes* or data extraction* or data abstraction*).mp. 53 (meta regression* or metaregression*).mp. 54 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53

PRISMA flowchart - Digital interventions targeting alcohol use disorders
Supplement 3: Study selection process

Identification

All identified studies **(n = 3.929)**
MEDLINE (n = 1.019)
Cochrane CENTRAL (n = 351)
Embase (n = 2.111)
PsychInfo (n = 799)

Studies from registries **(n = 1.028)**

References removed **(n = 2.263)**
Duplicates identified by Covidence (n =2.152)
Duplicates identified manually (n = 111)

Screening

Studies screened **(n = 3.045)**

Studies excluded **(n = 2.910)**

Studies sought for retrieval **(n = 135)**

Studies not retrieved **(n = 0)**

Studies assessed for eligibility **(n = 135)**

Studies excluded **(n = 114)**
Ineligible study design: n = **52** (systematic review with qualitative syntheses (n = 31), non-systematic reviews, including narrative reviews and scoping reviews (n = 21)
Ineligible population: n= **13** (e.g. majority of included studies were students or non-adult populations (n= 8) or non-problem drinking populations (n= 5)
Ineligible outcome: n= **13**
Ineligible intervention: n= 6 (all studies examined text message interventions)
Ineligible language, publication date or publication type: n = **6**

Included

Studies included in review **(n = 21)**
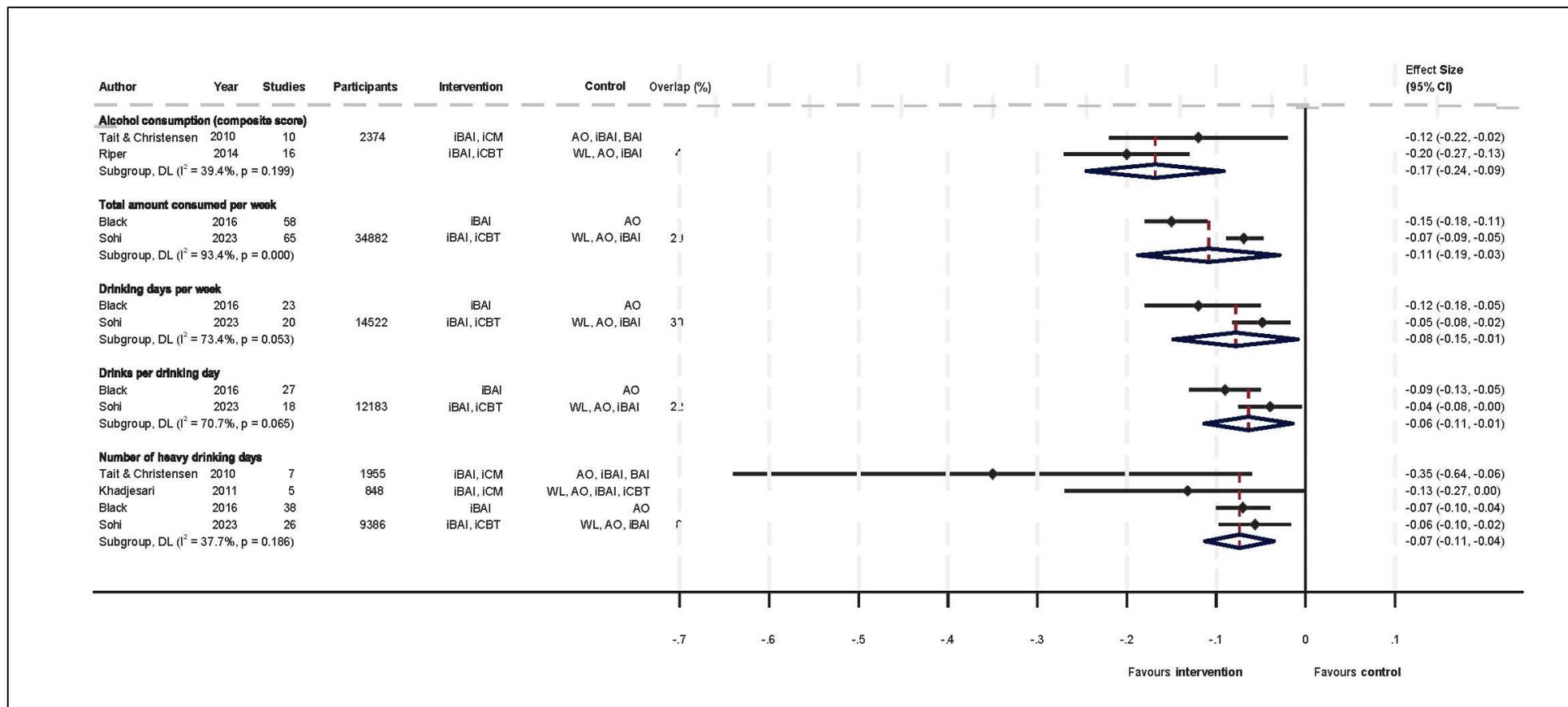Eligible studies (n= 21)
Reference searching eligible studies (n= 0)

Supplement 4. Risk of Bias for Systematic Reviews, 'A Measurement Tool to Assess systematic Reviews, Version 2 (AMSTAR 2)

Table X:

Items / Author (year)	1. Scope	2. Protocol	3. Study design	4. Search	5. Review process	6. Exclusions	7. Reporting y details	8. Bias assessment	9. Funding	10. Synthesis	11. Bias, results	12. Bias, interpretation	13. Heterogeneity	14. Bias, reporting	15. Deviations	15. Conflicts	Overall
Black (2016)	Y	PY	Y	PY	Y	Y	N	PY	N	N	Y	N	N	Y	Y	Y	Critically low
Cardigan (2015)	Y	N	Y	PY	N	Y	N	Y	N	Y	Y	N	N	Y	N	N	Critically low
Dedert (2010)	Y	N	Y	PY	Y	Y	N	PY	Y	Y	Y	Y	Y	Y	N	Y	Critically low
Doherty (2017)	Y	N	N	PY	Y	Y	N	Y	N	Y	Y	N	N	Y	N	Y	Critically low
Donoghue (2014)	Y	N	Y	PY	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Critically low
Dotson (2015)	Y	N	Y	PY	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Critically low
Fuhrmann (2024)	Y	Y	Y	PY	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	High
Kaner (2017)	Y	Y	Y	PY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	High
Khadjesari (2011)	Y	N	Y	Y	Y	Y	N	Y	PY	N	Y	Y	Y	Y	N	Y	Critically low
Kiluk (2019)	Y	N	Y	PY	Y	Y	Y	N	Y	N	Y	N	N	N	Y	Y	Critically low
OLogbon (2023)	Y	PY	Y	PY	Y	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Critically low
Oosterveen (2017)	Y	Y	Y	PY	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Low
Prosser (2018)	Y	N	Y	PY	N	Y	N	PY	Y	N	Y	Y	Y	Y	Y	N	Critically low
Pueyo-Garrigues (2024)	Y	Y	Y	PY	Y	Y	N	PY	Y	Y	Y	Y	Y	Y	Y	Y	Low
Riper (2011)	Y	N	Y	PY	Y	Y	N	N	Y	N	Y	Y	N	Y	Y	Y	Critically low
Riper (2014)	Y	N	Y	PY	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Critically low
Riper (2018)	Y	N	Y	PY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Low
Sohi (2023)	Y	N	Y	N	Y	Y	N	Y	Y	Y	N	N	N	Y	Y	Y	Critically low
Schouten (2022)	Y	Y	Y	PY	Y	Y	PY	Y	Y	N	Y	Y	Y	Y	N	Y	High
Tait & Christensen (2010)	Y	N	Y	PY	N	N	N	Y	N	N	Y	N	N	Y	N	Y	Critically low
White (2010)	Y	N	Y	PY	Y	Y	PY	Y	N	N	N	N	N	N	N	N	Critically low

ITEM DESCRIPTION: **1. Scope**: Clearly defined research question and eligibility criteria.; **2. Protocol**: Protocol registration and documentation of deviations.; **3. Study design**: Justification of eligible study designs.; **4. Search**: Comprehensiveness of the literature search.; **5. Review process**: Independent study selection and data extraction.; **6. Exclusions**: Reporting and justification of excluded studies.; **7. Reporting**: Adequate reporting of included study characteristics. **8. Bias assessment**: Structured assessment of risk of bias in included studies.; **9. Funding**: Consideration of funding sources in primary studies; **10. Synthesis**: Appropriateness of data synthesis methods.; **11. Bias, results**: Consideration of bias in interpreting study-level results.; **12. Bias, interpretation**: Consideration of bias in interpreting overall findings.; **13. Heterogeneity**: Investigation and discussion of heterogeneity.; **14. Bias**, **reporting**: Assessment of selective reporting or publication bias.; **15. Deviations**: Reporting and justification of deviations from the protocol.; **16. Conflicts**: Disclosure of reviewer conflicts of interest and funding sources. **Overall:** An overall judgment of risk of bias was derived for each systematic review using AMSTAR 2, with particular weight given to five critical domains (1. Scope, 2. Protocol, 4. Search, 5 Review process, and 8. Bias Assessment). Reviews were rated as 'critically low', 'low', 'moderate', or 'high' quality, reflecting the extent to which their findings could be considered methodologically reliable and trustworthy. ABBREVIATIONS: N: no; PY: partial yes; Y: yes

Supplement 5. Analyses of the overall effectiveness of digital interventions on alcohol consumption outcomes

Author	Year	Studies	Participants	Intervention	Control	Overlap (%)	Effect Size (95% CI)
Alcohol consumption (composite score)							
Tait & Christensen	2010	10	2374	iBAI, iCM	AO, iBAI, BAI		-0.12 (-0.22, -0.02)
Riper	2014	16		iBAI, iCBT	WL, AO, iBAI		-0.20 (-0.27, -0.13)
Subgroup, DL (I^2 = 39.4%, p = 0.199)							-0.17 (-0.24, -0.09)
Total amount consumed per week							
Black	2016	58		iBAI	AO		-0.15 (-0.18, -0.11)
Sohi	2023	65	34882	iBAI, iCBT	WL, AO, iBAI		-0.07 (-0.09, -0.05)
Subgroup, DL (I^2 = 93.4%, p = 0.000)							-0.11 (-0.19, -0.03)
Drinking days per week							
Black	2016	23		iBAI	AO		-0.12 (-0.18, -0.05)
Sohi	2023	20	14522	iBAI, iCBT	WL, AO, iBAI		-0.05 (-0.08, -0.02)
Subgroup, DL (I^2 = 73.4%, p = 0.053)							-0.08 (-0.15, -0.01)
Drinks per drinking day							
Black	2016	27		iBAI	AO		-0.09 (-0.13, -0.05)
Sohi	2023	18	12183	iBAI, iCBT	WL, AO, iBAI		-0.04 (-0.08, -0.00)
Subgroup, DL (I^2 = 70.7%, p = 0.065)							-0.06 (-0.11, -0.01)
Number of heavy drinking days							
Tait & Christensen	2010	7	1955	iBAI, iCM	AO, iBAI, BAI		-0.35 (-0.64, -0.06)
Khadjesari	2011	5	848	iBAI, iCM	WL, AO, iBAI, iCBT		-0.13 (-0.27, 0.00)
Black	2016	38		iBAI	AO		-0.07 (-0.10, -0.04)
Sohi	2023	26	9386	iBAI, iCBT	WL, AO, iBAI		-0.06 (-0.10, -0.02)
Subgroup, DL (I^2 = 37.7%, p = 0.186)							-0.07 (-0.11, -0.04)

Figure 1 legend: This figure illustrates the overall synthesis of the effectiveness of digital interventions across population type, intervention type, level of human guidance, delivery pathway, comparator types; and duration of follow-ups. The random effects modelling are reported as Standard Mean Difference (SDM) with uncertainty estimated with 95% confidence intervals (CI) and heterogeneity across trials estimated with I^2 statistic for all outcomes.

ABREVIATIONS: AO: assessment only; BAI: brief alcohol intervention; iBAI: internet-based brief alcohol intervention; iCBT: internet-based cognitive behavioral therapy; iCM: internet-based contingency management; WL: waitlist

Supplement 6. GRADE: Quality assessment of systematic rewiews divided by sub-group analyses

Quality assessment						Summary of findings		
No. of reviews/total trials	Risk of bias (AMSTAR)	Inconsistency	Indirectness	Imprecision	Publication bias	No. of patients	Relative effect SMD (95% CI)	Quality
Overall								
ACCS	Serious	Not serious	Not serious	Not serious	Serious	2.374	-0.17 (-0.24, -0.09)	Low
k=26								
TAC	Serious	Very serious	Not serious	Not serious	Serious	34.882	-0.11 (-0.19, -0.03)	Very low
k=123								
DD	Serious	Serious	Not serious	Not serious	Very serious	14.522	-0.08 (-0.15, -0.01)	Very low
k=43								
DDD	Serious	Serious	Not serious	Not serious	Very serious	12.183	-0.06 (-0.11, -0.01)	Very low
k=45								
HDD	Serious	Not serious	Not serious	Not serious	Serious	12.189	-0.07 (-0.11, -0.04)	Low
k=76								
Population type								
Subclinical								
ACCS	Serious	Not serious	Not serious	Not serious	Serious	2.374	-0.16 (-0.26, -0.05)	Low
k=13								
TAC	Serious	Very serious	Not serious	Not serious	Serious	43.845	-0.09 (-0.14, -0.03)	Very low
k=155								
DD	Very serious	Serious	Not serious	Not serious	Serious	16.431	-0.07 (-0.12, -0.02)	Very low
k=54								
DDD	Serious	Serious	Not serious	Not serious	Serious	12.813	-0.06 (-0.11, -0.01)	Very low
k=45								
HDD	Not serious	Not serious	Not serious	Not serious	Serious	14.448	-0.07 (-0.10, -0.03)	Moderate
k=84								
Clinical								
ACCS	Not serious	Not serious	Not serious	Not serious	Serious	706	-0.21 (-0.29, -0.14)	Moderate
k=20								
TAC	Not serious	Not serious	Not serious	Serious	Serious	7.122	-0.14 (-0.38, 0.10)	Low
k=16								
Intervention type								

Low intensity								
ACCS	Not serious	Not serious	Not serious	Not serious	Serious	NR	-0.16 (-0.24, -0.08)	Moderate
k=6								
TAC	Serious	Very serious	Not serious	Not serious	Serious	12.013	-0.08 (-0.15, -0.02)	Very low
k=97								
DD	Very serious	Not serious	Not serious	Serious	Serious	1.909	-0.09 (-0.18, -0.00)	Very low
k=34								
DDD	Serious	Not serious	Not serious	Not serious	Serious	9.791	-0.07 (-0.11, -0.04)	Low
k=42								
HDD	Not serious	Serious	Not serious	Not serious	Not serious	6.695	-0.10 (-0.18, -0.02)	Moderate
k=66								
High intensity								
ACCS	Not serious	Not serious	Not serious	Not serious	Not serious	706	-0.19 (-0.27, -0.11)	High
k=17								
TAC	Serious	Not serious	Not serious	Not serious	Serious	5.356	-0.09 (-0.15, -0.04)	Low
k=15								
Intervention format								
Unguided								
ACCS	Not serious	Not serious	Not serious	Not serious	Serious	4.633	-0.20 (-0.29, -0.11)	Moderate
k=40								
TAC	Not serious	Very serious	Not serious	Not serious	Serious	60.883	-0.07 (-0.12, -0.02)	Very low
k=198								
DD	Very serious	Not serious	Not serious	Serious	Serious	1.909	-0.09 (-0.18, -0.00)	Very low
k=34								
DDD	Very serious	Not serious	Not serious	Not serious	Not serious	NR	-0.09 (-0.13, -0.05)	Low
k=27								
HDD	Not serious	Serious	Not serious	Not serious	Serious	8.650	-0.12 (-0.20, -0.04)	Low
k=73								
Guided								
ACCS	Not serious	Not serious	Not serious	Not serious	Serious	NR	-0.23 (-0.41, -0.05)	Moderate
k=4								
TAC	Not serious	Not serious	Not serious	Not serious	Serious	729	-0.31 (-0.46, -0.17)	Moderate
k=6								

Delivery mode								
Mobile phone/tablet								
ACCS	Not serious	Not serious	Not serious	Not serious	Not serious	706	-0.23 (-0.39, -0.08)	High
k=7								
Computer								
ACCS	Not serious	Very serious	Not serious	Serious	Serious	2.374	-0.10 (-0.27, 0.08)	Very low
k=36								
TAC	Not serious	Very serious	Not serious	Serious	Not serious	19.527	-0.09 (-0.20, 0.03)	Very low
k=52								
DD	Serious	Not serious	Not serious	Not serious	Serious	11.915	-0.09 (-0.16, -0.02)	Low
k=23								
HDD	Not serious	Serious	Not serious	Serious	Very serious	5.072	-0.12 (-0.27, 0.03)	Very low
k=20								
Computer, mobile phone/tablet								
ACCS	Not serious	Not serious	Not serious	Not serious	Serious	NR	-0.20 (-0.27, -0.13)	Moderate
k=10								
TAC	Not serious	Very serious	Not serious	Serious	Serious	36.316	-0.05 (-0.11, 0.01)	Very low
k=79								
DD	Not serious	Not serious	Not serious	Not serious	Not serious	10.920	-0.08 (-0.12, -0.04)	High
k=16								
DDD	Not serious	Not serious	Not serious	Not serious	Not serious	9.791	-0.05 (-0.09, -0.01)	High
k=15								
HDD	Not serious	Not serious	Not serious	Serious	Not serious	3.784	-0.12 (-0.41, 0.17)	Moderate
k=17								
Comparator type								
High intensity vs. passive controls								
ACCS	Not serious	Not serious	Not serious	Very serious	Serious	NR	-0.20 (-0.40, -0.00)	Very low
k=8								
High intensity vs. TAU								
ACCS	Not serious	Not serious	Not serious	Very serious	Serious	NR	-0.07 (-0.35, 0.21)	Very low
k=16								
High intensity vs. FTFI								
ACCS	Not serious	Not serious	Not serious	Not serious	Not serious	706	-0.23 (-0.39, -0.08)	High
k=7								

Low intensity vs. passive controls								
TAC	Serious	Very serious	Not serious	Serious	Serious	33.353	-0.08 (-0.15, -0.00)	Very low
k=142								
DD	Not serious	Not serious	Not serious	Not serious	Not serious	10.862	-0.08 (-0.12, -0.04)	High
k=15								
DDD	Serious	Not serious	Not serious	Not serious	Serious	9.791	-0.07 (-0.11, -0.04)	Low
k=42								
HDD	Serious	Very serious	Not serious	Not serious	Serious	4.426	-0.14 (-0.25, -0.03)	Very low
k=58								
Low intensity vs. FTFI								
ACCS	Not serious	Not assessed	Not serious	Not assessed	Serious	706	Not assessed	Moderate
k=2 n=9								
TAC	Very serious	Not serious	Not serious	Very serious	Very serious	1.255	0.10 (-0.13, 0.32)	Very low
k=10								
DD	Very serious	Not serious	Not serious	Serious	Very serious	1.909	-0.03 (-0.15, 0.10)	Very low
k=11								
HDD	Not serious	Not serious	Not serious	Very serious	Not serious	206	0.06 (-0.22, 0.33)	High
k=2								
Follow-up duration								
Short-term								
ACCS	Not serious	Not serious	Not serious	Not serious	Serious	NR	-0.19 (-0.25, -0.12)	Moderate
k=36								
TAC	Not serious	Not serious	Not serious	Not serious	Serious	44.840	-0.07 (-0.09, -0.05)	Moderate
k=83								
DD	Serious	Not serious	Not serious	Not serious	Serious	13.191	-0.04 (-0.08, -0.01)	Low
k=20								
DDD	Not serious	Not serious	Not serious	Not serious	Serious	11.599	-0.04 (-0.08, -0.01)	Moderate
k=17								
HDD	Not serious	Serious	Not serious	Serious	Serious	13.696	-0.05 (-0.12, 0.03)	Very low
k=29								
Long-term								
ACCS	Not serious	Not serious	Not serious	Not serious	Serious	NR	-0.15 (-0.20, -0.10)	Moderate
k=26								

TAC	Not serious	Serious	Not serious	Serious	Serious	15.968	-0.03 (-0.07, 0.02)	Very low
k=36								
DD	Serious	Not serious	Not serious	Serious	Serious	3.184	-0.03 (-0.13, 0.06)	Very low
k=9								
DDD	Not serious	Not serious	Not serious	Serious	Serious	587	-0.03 (-0.19, 0.13)	Low
k=1								
HDD	Not serious	Not serious	Not serious	Serious	Serious	1.441	-0.07 (-0.17, 0.04)	Low
k=2								

ABBREVIATIONS: ACCS: alcohol consumption composite score; DD: drinking days per week; DDD: drinks per drinking day; HDD: heavy drinking days; NR: Not reported; TAC: total amount consumed per week