

Reference	Outcome	Population	Intervention and comparison	Duration of intervention	Number of studies and patients	Key findings	Risk of bias	Duration of follow-up	Summary of follow-up	Comments	Level of evidence (GRADE)
Boniface 2018	Alcohol consumption or composite scores from validated questionnaires like AUDIT	Common mental health problems or severe mental illness. Age 16 years or more.	Brief interventions vs. minimally active control or active intervention (MI or CBT)	Various	17 RCTs, 3275 patients	Common mental health problems: In 4/9 studies significant reduction in BI group vs minimally active control; In 2 studies no difference between BI vs. active control. Severe mental illness: In 2/5 studies significant reduction in BI group vs minimally active control; In 1 study no difference between BI vs. active control.	Considerable heterogeneity between trials. Meta-analysis was not possible.	Varied from 1 to 24 months. Data not given for all studies.	NA	"Evidence is mixed regarding effects of alcohol BI in people with comorbid mental health conditions."	A > D (heterogeneity, poor quality of studies, imprecision)
Kaner 2018	Primary outcomes: Consumption of alcohol, most often reported as self-reported or other reports of drinking quantity, of binge drinking frequency, of drinking frequency, of drinking intensity, and of drinking within recommended limits. Proportion of heavy drinkers and of binge drinkers. Secondary outcomes: Levels of laboratory markers of reduced alcohol, alcohol-related harm to drinkers or others affected, patient satisfaction measures, health-related quality of life, and economic measures including use of health services. consumption	Hazardous or harmful drinkers in general practice or emergency care settings.	Brief intervention vs. no or minimal intervention, where a measure of alcohol consumption was reported. Brief intervention was defined as a conversation comprising five or fewer sessions of brief advice or brief lifestyle counselling and a total duration of less than 60 minutes.	A single brief intervention (29 studies), the remaining between 2 and 5 sessions, individual sessions varied from one to a maximum of 60 minutes. Extended interventions were evaluated in 10 trials and the duration of extended sessions ranged from 60 minutes to 180 minutes.	69 RCTs, 33642 participants	Primary meta-analysis (34 studies (15,197 participants) provided moderate-quality evidence that participants who received brief intervention consumed less alcohol than minimal or no intervention participants after one year (mean difference (MD) -20 g/week, 95% confidence interval (CI) -28 to -12).	There was substantial heterogeneity among studies ($I^2 = 73%$): substantial heterogeneity among trials in terms of setting (general practice or emergency care settings), populations enrolled, screening instruments used, baseline consumption of alcohol, and the brief intervention and minimal or no intervention conditions delivered.	The primary analyses reported outcomes at 12 month follow-up. Minimum follow-up time was 6 months. Where sufficient information was available, analyses were based at other follow-up times.	If outcomes were reported at several time points, data for one-year follow up were used in the meta-analyses if available.		A > D (heterogeneity, poor quality of studies, selective outcome data available)
Kaner 2017	Quantity of drinking, frequency of drinking, frequency of binge drinking, intensity of drinking, adverse events	People living in the community whose alcohol drinking screened as hazardous or harmful and who were directed toward any digital intervention (web based, mobile phone text messaging, smartphone apps, social networking or stand-alone computer based technologies).	Intervention digital (being delivered primary through a programmable computer or mobile device). Control condition: no intervention, printed or onscreen health or alcohol-related information, the care the patient would have received anyway. Face-to-face intervention to reduce alcohol consumption.	Not stated.	57 RCTs (34 390 participants)	Fifteen studies (16 comparisons, 10,862 participants) demonstrated that participants who engaged with digital interventions had less than one drinking day per month fewer than no intervention controls (moderate-quality evidence), 15 studies (3587 participants) showed about one binge drinking session less per month in the intervention group compared to no intervention controls (moderate-quality evidence), and in 15 studies (9791 participants) intervention participants drank one unit per occasion less than no intervention control participants (moderate-quality evidence). Digital alcohol interventions produced broadly similar outcomes compared to face-to-face interventions.	Evidence moderate to low quality (attrition bias, participant blinding).	Follow-up times ranged from 1 to 24 months (median = 3 months).	Timing of outcomes reported.		A > C (heterogeneity, incomplete outcome data, problems with blinding)
Klimas 2018	Primary outcomes 1. Alcohol use (reduction or stabilisation), 2. Retention in treatment. Secondary outcomes 1. Illicit drug use (changes in illicit drug use), 2. Alcohol-related problems or harms.	People who use illicit drugs (PWID), aged 18 years or more, attending a range of services (i.e. community, inpatient or residential, including receiving opioid agonist treatment). Only studies that defined participants as problem drug and alcohol users at randomisation were included.	Experimental interventions: any psychosocial intervention that was described by the study's author(s) as such. Control interventions: other psychosocial interventions that allowed for comparisons between different types of interventions (e.g. CBT, contingency management, family therapy, etc.), standard care, no intervention, waiting list, or any other non-pharmacological therapy, including moderate drinking, assessment-only.	Brief motivational interviewing (BMI) is a shorter MI that takes 45 minutes to three hours. Brief interventions are based on MI but they take only five to 30 minutes and are often delivered by a non-specialist.	8 RCTs (825 participants)	No difference in effectiveness between different types of psychosocial interventions to reduce alcohol consumption among people who use illicit drugs. Brief interventions are not superior to assessment-only or to treatment as usual.	Low to very low-quality evidence (moderate for brief and intensive motivational interviewing, but low for brief interventions and standard motivational interviewing, and very low for CBCST versus twelve-step programme).	2-9 months	NA		A > D (poor quality of studies, lacking data of randomization and allocation, subjective outcomes, open studies, incomplete outcome data)

Foxcroft 2016	Quantity of alcohol consumed, frequency of alcohol consumption, binge drinking, alcohol problems, average BAC (blood alcohol concentration), peak BAC, drink driving, risky behavior	Young adults aged up to 25 years old. "mindfulness meditation," "MBI," "mindfulness training", "MBSR," "mindfulness-based cognitive therapy," "MBRP," "dialectical behavior therapy," "ACT," "spiritual self-schema therapy," "Vipassana meditation," and "Zen meditation" in combination with the name of each substance (i.e., substances, drugs, alcohol, marijuana, cocaine, opioid, heroin, methamphetamine). Studies had to compare MBIs with other psychological, psychoeducational, and/or pharmacological treatments usually provided in clinical practice. All studies had to refer to valid and	Experimental interventions: MBIs are defined as a one or more session approach including MI principles, as the core of the intervention as well as a feedback element or other non-MI techniques. Comparator intervention(s): No intervention, assessment only. Alternative interventions without MI components.	Individual session - six group sessions. Duration of sessions varied: the shortest was a single 10 to 15 minute intervention, and the longest had five MI sessions over a 19-hour period.	84 trials (22 872 participants)	There are no substantive, meaningful benefits of MI interventions for preventing alcohol use, misuse or alcohol-related problems. In some statistically significant effects, the effect sizes were too small, given the measurement scales used in the included studies, to be of relevance to policy or practice. Moreover, the statistically significant effects are not consistent for all misuse measures.	Moderate or low quality evidence.	< 4 months and > 4 months	Studies with follow-up periods of at least four months were of more interest in assessing the sustainability of intervention effects and were also less susceptible to short-term reporting or publication bias.	A > C (lacking data of randomization and allocation concealment, heterogeneity of studies)	
Gavicchioli 2018	Primary outcomes (i.e., AR, abstinence maintenance, levels of perceived craving) and secondary outcomes (i.e., levels of perceived stress, negative affectivity, overall mental health, the severity of depressive, anxious and post-traumatic symptomatology and the use of avoidance coping strategies).	to refer to valid and	Active treatments: 7 studies implemented mindfulness practices into usually provided programs, 6 studies combined manualized MBIs (i.e., ACT, MBRP, MBSR) with other standard interventions, 21 studies compared manualized MBIs adapted for SUDs with other active interventions. Control treatments: 12-steps focused programs (7 studies), CBTs (7 studies), individual counseling, or psychoeducational treatments or supportive groups (4 studies), mixed interventions which combined the previous treatment approaches (11 studies), and therapeutic community (3 studies).	10 days - 72 weeks	37 studies (n = 3 531 patients); 25 RCTs,	MBIs seemed to show clinically significant, albeit preliminary, advantages compared to other clinical approaches when it was considered specific relapse factors that refer to anxious and depressive symptoms, especially when SUDs co-occur with other psychiatric disorders.	No difference between treatment conditions when AR was considered as an outcome measure, especially when the effect of RCTs was tested. A significant difference in pooled effect sizes when RCTs and NRCTs were compared. Specifically, when MBIs were carried out as an NRCT, they seemed to exhibit a benefit, albeit modest, in reducing the dropout phenomenon. A null pooled effect size in AR when MBIs were compared with other treatments. A significant small pooled effect size in abstinence. A large pooled effect size in relation to the levels of perceived craving during the interventions.	4 - 72 weeks	NA	A > C (heterogeneity in effect sizes and between studies)	
Riper 2018	Primary outcome measure: mean weekly alcohol consumption in standard units (SUs, 10 grams of ethanol). Secondary outcome: treatment response (TR), defined as less than 14/21 SUs for women/men weekly.	People aged >= 18 with quantifiable levels of alcohol consumption that exceeded recommendations for low-risk drinking.	Active condition: iAI (internet-based alcohol intervention), control condition: (e.g., assessment only, waitlist, or minimal intervention);	Not stated.	19 RCTs (14 198 adult participants)	Internet-based alcohol interventions in both community and healthcare populations are effective in reducing mean weekly alcohol consumption and in achieving adherence to low-risk drinking limits. People exceeding risk limits to a smaller or a larger degree benefited from the interventions, as did binge-only drinkers. Human-guided interventions showed a stronger impact on treatment outcome than fully automated ones, but waitlist design controls may inflate outcomes.	The overall quality of the RCTs high; a major limitation included high study dropout (43%).	First posttreatment assessment (FPTA) 1-12 months.	The first IPDMA on internet-based interventions that has shown them to be effective in curbing various patterns of adult problem drinking in both community and healthcare settings. Waitlist control may be conducive to inflation of treatment outcomes.	A > B (high study dropout)	
Landy 2016	Four main outcomes of interest: reduction in alcohol consumption, ED visits/hospitalizations, alcohol-related injuries, and alcohol-related risky behavior.	Adult sample (majority of participants between 18 and 65 years of age).	Active intervention: Brief intervention (BI) condition. Control condition: screening for at risk drinking and then giving an information booklet or printed resources; controls received an assessment or usual care; extended counseling, not have a comparison condition at all; in a few cases, there were multiple comparison groups, and the BI was compared to various types of assessments and/or intervention.	A single-session intervention, typically lasting between 5 and 30 minutes; a few lasted as long as 60 minutes.	34 studies (12 542 participants)	There was a significant decrease in alcohol consumption at 3 month follow-up, but results were mixed with regard to whether there were significant differences between the BI and control conditions. Some of the studies reviewed found significant differences between the BI and control conditions at 3, 6, and 12 months post-BI, but the majority of studies did not find significant between-group differences at any of these time points. BIs may not be effective in reducing alcohol consumption above and beyond the effect that is produced by a visit to the ED due to alcoholrelated consequences.	Publication bias, absence of fidelity ratings, most studies only assessed alcohol consumption according to self-report, drop-out rates as high as 60 %.	6 weeks - 3 years	NA	Most of the studies pre/post designs and randomized control trials. One meta-analysis, one review article, and one retrospective observational descriptive study. One paper and one symposium that summarized results from several studies. A few studies that involved secondary analyses.	A > D (publication bias, absence of fidelity ratings, self-reported outcome data, high drop-out rates)
Rozen 2010	Primary: encouragement of the treatment-resistant IP (identified patient) to enter formal treatment, defined as attending at least one treatment session. CSO improvement in the level of symptoms (depression)	Adult CSOs with treatment resistant IPs with substance use disorders.	IP: CRAFT vs. Al-Anon/Nar-Anon; CSO: improvements (level of depression symptoms)	Durations not stated.	4 studies (264 CSOs): 2 about alcohol, 2 illicit drugs	CRAFT produced 3 times more patient engagement than Al-Anon/Nar-Anon and twice the engagement of the Johnson Institute Intervention. CRAFT encouraged 2/3 of treatment-resistant patients to attend treatment, typically for 4-6 CRAFT sessions. CSOs showed marked psychosocial and physical improvements whether they were assigned to CRAFT, Al-Anon/Nar-Anon or Johnson Institute intervention within the 6-month treatment window.	Only four studies. Methodological quality of the studies was high. No significant heterogeneity. Duration of treatments not stated.	10 weeks - 6 months	Not stated.	Study protocol allowed both RCTs and CCTs, but the studies that were analyzed in the review are all RCTs.	A > B (poor data of randomization and allocation concealment, low number of studies, duration of treatment not reported)