

Multimedia Appendix 1. Intervention and study characteristics.

Intervention brand name (First author if no brand) References	Simple / Complex	Country	Type of intervention	Targeted groups: Age Gender Substance	Type of study: Design N Follow up
Agyapong [47-49]	Simple	Ireland	Stand alone, text messaging, mobile platform	Adults Men and women Alcohol	Quant/ control N=54 3 months
Alemi [50]	Simple	USA	Integrated, online counseling, desktop and mobile platforms	Adults Men and women Mixed substances	Quant/ no control N=79 4 months
Andrade [51]	Simple	Brazil	Stand alone, online counseling with CBT elements and drinking monitoring, mobile platform	Adults Men and women Alcohol	Quant/ no control N=312 1 month
Aschbrenner [52, 53]	Simple	USA	Integrated, text messaging and monitoring (medication compliance) and daily support (coping strategies), mobile platform	Adults Men and women Alcohol	Qualitative N=17 3 months
Bischof [54]	Simple	Germany	Integrated, stepped care with computerized feedback on monitored stage of change (TTM), face to face counseling and follow up telephone counseling, mobile/ desktop platform	All ages Men and women Alcohol	Quant/ control N=408 12 months
Bjerke [55]	Simple	Norway	Integrated, text messaging, mobile platform	Adults Men and women Mixed substances	Qualitative N=16 4 months
My Assessment [56]	Simple	Australia	Integrated, electronic psychosocial assessment, mobile platform	Adolescents Men and women Mixed substances	Quant/ control N=339 6 months
IBM-H (Interpretation Bias Modification-Hostility) [57]	Simple	USA	Stand alone, 8 session intervention designed to modify interpretations of social situations to reduce hostility vs. videos on healthy habits and self-care, web platform.	Adults Men and women Alcohol	Quant/ control N=58 2 months
Gagnon [58]	Simple	Canada	Integrated, tailored audiovisual messages (safer injection), web platform	Adults Men and women Opioids	Quant/ control N=260 3 months
ESQYIR (Educating & Supporting inquisitive Youth in Recovery) [59-61]	Simple	USA	Stand alone, text messaging (including self-monitoring, support), mobile platform	Adolescents Men and women Mixed substances	Quant/ control and qual N=80 9 months
Haug [62]	Simple	Switzerl.	Integrated, text messaging (including monitoring, support, online counseling), mobile platform	Adults Men and women Alcohol and cannabis	Mixed methods N=50 6 months
Ingersoll [63]	Simple	USA	Integrated, text messaging (including monitoring, counseling), mobile platform	Adults Men and women Mixed substances	Quant/ control N=63 6 months
Lucht [64]	Simple	Germany	Integrated, text messaging (including monitoring, telephone support), mobile platform	Adults Men and women Alcohol	Quant/ control N=80 2 months

Reback [65]	Simple	USA	Stand alone. Theory- based Health Belief Model (HBM), Social Cognitive Theory (SCT), and Social Support Theory (SST) SMS conditions mobile platform	Adults Men Stimulants	Quant/ control but no randomization N=52 1 month
Rooke [66]	Simple	Australia	Stand alone, described only as a “smart phone app” with no additional information provided, mobile platform	Adolescents Men and women Cannabis	Quant/ no control N=111 2 months
IHMD (In-Home-Messaging-Device) [67]	Simple	USA	Integrated, text messaging (including monitoring, skills development), mobile platform	Adults Uncertain gender Alcohol	Quant/ control N=121 3 months
MEMS [68]	Simple	USA	Integrated, text messaging (including medication monitoring, support, reminders), mobile platform	Adults Men and women Alcohol	Quant/ control N=76 2 months
Navigating my Journey [69]	Simple	USA	Integrated online relapse prevention supplement for adolescents in SUD treatment. Based on MET/CBT, compared to attention control	Adolescents Men and women Mixed	Quant/ control N=129 6 months
No intervention [45]	Simple	USA	Text messaging content to improve medication compliance, but no specific intervention	Adults Men and women Opioids	Survey N=97 NA
Overcoming Addictions [70]	Complex	USA	Stand alone, self-help program consisting of the four modules in the Smart Recovery program (education and exercises) and additional information links/pop-ups, desktop platform	Adults Men and women Alcohol	Quant/ control N=189 6 months
A-CHESS [71-77]	Complex	USA	Integrated, the alcohol version of more generic program consisting of monitoring, information, support and interactivity with counselors and peers, mobile platform	All ages Men and women Alcohol; alcohol and cannabis	Quant/ control; quant/no control; mixed N=29-349 up to 12 months
LBMI-A (Location-Based Monitoring/ Intervention for Alcohol Use Disorders [78]	Complex	USA	Stand alone, CBT-inspired program with seven modules consisting of psycho-educational material and tools, and monitoring, mobile/ desktop platform	Adolescents and adults Men and women Alcohol and cannabis	Quant/ control N=54 6 weeks
Check-In Program [79]	Complex	USA	Integrated, two skill-based interactive modules: “functional analysis” and “self-management”, mobile platform	Adults Men and women Opioids and mixed substances	Mixed methods N=50 3 months
Health Call [80, 81]	Complex	USA	Integrated, monitoring program based on 30 daily questions, offers contact with counselor, mobile platform with smartphone A second study compared Health Call plus MI to MI only	Adolescents Men and women Alcohol and cannabis Adults Men and women Mixed substances	Mixed methods N=84 2 months Mixed methods N=47 2 months
MyFYR (My First	Complex	USA	Integrated, information, monitoring, care management, support, self-help	Adults Men and women	Quant/no control

Year in Recovery) [82]			groups, mobile/ desktop platform	Alcohol and mixed substances	N=198 12 months
Snow Control [83]	Complex	Switzerl.	Stand alone, eight CBT, MI, self-control based, interactive modules, mobile/desktop platform	Adults Men and women Stimulants	Quant/ control N=196 6 months
Can Reduce [84]	Complex	Switzerl.	Stand alone, same as Snow Control but adjusted to cannabis users, one study arm with chat room added, mobile/desktop platform	Adolescents and adults Uncertain gender Cannabis	Quant/ control N=308 3 months
Tait [85]	Complex	Australia	Stand alone, CBT, MI, harm avoidance based, automated, self-guided sequential modules, desktop platform	Adolescents Uncertain gender Stimulants	Quant/ control N=160 6 months
Quit the Shit [86]	Complex	Germany	Stand alone, self-regulation/control based, four phases, self-monitor, weekly feedback/chat, desktop platform	Adolescents and adults Men and women Cannabis	Quant/ control N=206 2 months
No intervention [46]	Complex	Germany	Acceptance of digital after care programs, not only SUD, no specific intervention	Adolescents and adults men and women NA	Survey N=374 NA