2021

INTENSIIVISEN HOIDON JA KUNTOUTUKSEN MENETELMÄT HUUME- JA LÄÄKERIIPPUVUUKSIEN HOIDOSSA

SYSTEMAATTISEN KATSAUKSEN PÄIVITYS

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KUVIOT, TAULUKOT JA LIITTEET

Johdanto

Huumausaineiden käyttö sekä niiden käyttöön liittyvät ongelmat ovat lisääntyneet kuluneen vuosikymmenen aikana. Lisäksi ongelmakäyttäjien määrä on kasvanut ja arvioiden mukaan vuonna 2017 Suomessa oli 31000–44300 opioidien ja amfetamiinien ongelmakäyttäjää. Hoitoon hakeutuvilla ensisijaisena ongelmapäihteenä Suomessa ovat opioidit, mutta sekakäyttö on varsin yleistä ja yli puolella ongelmakäyttäjistä on käytössään ainakin kolme eri päihdettä. Tavanomaisimmat päihteet sekakäytössä ovat opioidien lisäksi stimulantit, kannabis, rauhoittavat lääkkeet ja alkoholi. Yleisimpiä pistämällä käytettyjä huumeita ovat buprenorfiini, amfetamiini ja metamfetamiini. Huumeiden käytöstä aiheutuu vuosittain satojen miljoonien eurojen haittakustannukset, joista suurin osa (32 %) kohdistuu sosiaalihuollon kustannuksiin. Huumausaineiden käytön vuoksi hoitoon hakeutuneista suurin osa on miehiä (71 %) ja asiakkaiden keski-ikä on 34 vuotta. (THL, 2020.)

Huumeongelmien hoidossa hoito pohjautuu räätälöityyn, psykososiaalisia interventioita hyödyntävään hoitoon (Huumeongelmaisen hoito: Käypä hoito -suositus, 2018). Psykososiaaliset interventiot käsittävät useita erilaisia psykologisia ja sosiaalisia keinoja käyttäviä menetelmiä (Lönnqvist, 2020). Tämän Terveydenhuollon palveluvalikoimaneuvoston (PALKO) mielenterveys- ja päihdepalvelujen jaoston (Miepä-jaosto) tilaamaan systemaattisen katsauksen tarkoituksena on päivittää vuonna 2019 julkaistu systemaattinen katsaus ”Intensiivisen hoidon ja kuntoutuksen menetelmät riippuvuuksien hoidossa” (Komulainen, Lamberg, & Tuunainen, 2019) huume- ja lääkeriippuvuuksien hoidon osalta. Katsauksessa tarkasteltavat psykososiaaliset hoitomenetelmät on kuvattu vuonna 2019 julkaistussa katsauksessa (Komulainen ym., 2019).

Tarkoitus

Tämän systemaattisen katsauksen tarkoituksena on PALKO:n Miepä-jaoston tilauksen mukaisesti selvittää 21.1.2019 jälkeen julkaistun tieteellisen kirjallisuuden pohjalta:

- millaisten psykososiaalisten hoitojen vaikuttavuutta on tutkittu huume- ja lääkeriippuvuuksien hoidossa,
- mitkä psykososiaaliset hoidot on osoitettu vaikuttaviksi vähentämään päihteiden käyttöä tai tukemaa raittiutta henkilöillä, joilla on huume- tai lääkeriippuvuus
- kuinka luotettavia saadut tulokset ovat, sekä
- millaisia muita tuloksia näillä interventioilla on saatu suhteessa tutkittavien terveyteen liittyvän elämänlaadun, toimintakyvyn tai terveyden tukemiseen, muiden terveyspalveluiden käyttöön ja siihen, miten sitoutuneita tutkittavat ovat hoitoonsa.

Lisäksi katsauksen tulososassa raportoidaan PALKO:n Miepä-jaoston pyynnön mukaisesti katsaukseen sisällytetyissä tutkimuksissa päihteiden käytön vähenemisen ja raittiuden mittaamiseen käytetyt mittarit sekä aihetta koskevat hoitosuositukset, jotka ovat julkaistu vuoden 2019 katsauksen jälkeen.

Menetelmät

Päivitys toteutettiin systemaattisena kirjallisuuskatsauksena, joka pohjautui PALKO:n Miepä-jaoston hyväksymään työsuunnitelmaan, jossa ennalta määriteltiin katsaukseen mukaan otettavan aineiston mukaanotto- ja poisjättökriteerit. Katsaus eteni vaiheittain sisältäen aineiston haun aiheen kannalta relevanteista tutkimustietokannoista yhteistyössä informaatikon (KL) kanssa, aineiston systemaattisen läpikäynnin ja valinnan otsikko-, abstrakti- ja kokotekstin tasoilla kahden tutkijan toimesta itsenäisesti, mukaan valittujen tutkimusten harhan riskin arvioinnin kahden tutkijan toimesta itsenäisesti, tietojen uuttamisen valituista tutkimuksista sekä tulosten tulkinnan ja johtopäätösten tekemisen.

Aiheen rajaus

Aiheen rajaus toteutettiin PALKO:n Miepä-jaoston toimeksiannon pohjalta. Aineiston mukaanotto- ja poisjättökriteereitä tarkennettiin jaoston kanssa käydyissä palavereissa loka-marraskuussa 2020 työsuunnitelman laadintavaiheessa. Aiheen rajauksessa käytettiin PICO-mallia. Alkuperäisestä päivitettävänä olevasta systemaattisesta katsauksesta (Komulainen ym., 2019) poiketen katsauksen päivitys rajattiin käsittelemään vain huume- ja lääkeriippuvuuksien hoitoa. Katsauksessa tarkasteltavat interventiot rajattiin ennalta määriteltyihin psykososiaalisiin interventioihin, joita käytetään päihdehoitoon tai päihdekuntoutukseen, ja joita verrattiin tutkimuksissa muuhun psykososiaaliseen tai farmakologiseen interventioon. Tarkasteltavana primaarisena lopputulosmuuttujana tuli olla päihteiden käytön väheneminen tai raittius eri tavoin mitattuna (mukaan lukien relapsi). Mukaan valittava tutkimus tuli olla RCT-tutkimus tai niiden systemaattinen katsaus tai meta-analyysi. Yksityiskohtaiset katsauksen mukaanotto- ja poisjättökriteerit on kuvattu liitteessä 1.

Aineiston haku

Kirjallisuushaussa käytettävissä hakulausekkeissa hyödynnettiin vuonna 2019 julkaistun ja nyt päivitettävänä olevan systemaattisen katsauksen (Komulainen ym., 2019) tiedonhakulausekkeita huume- ja lääkeriippuvuuksien osalta. Hakulausekkeisiin tehtiin vielä informaatikon (KL) ja asiantuntijaryhmän suosituksesta ja PALKO:n Miepä-jaoston kanssa käytyjen keskustelujen pohjalta laajennuksia ottamalla mukaan ylätason hakutermien alle kuuluvia käsitteitä, poistamalla ”focus”-rajauksia sekä laajentamalla päihteisiin liittyviä hakusanoja. Tällä haluttiin varmistaa, että kaikki aihetta koskevat tutkimusviitteet löytyvät toteutetulla kirjallisuushaulla. Lisäksi tiedonhaussa käytettäviä tietokantoja täydennettiin aiemmasta (uutena mukaan PsycINFO ja Cinahl).

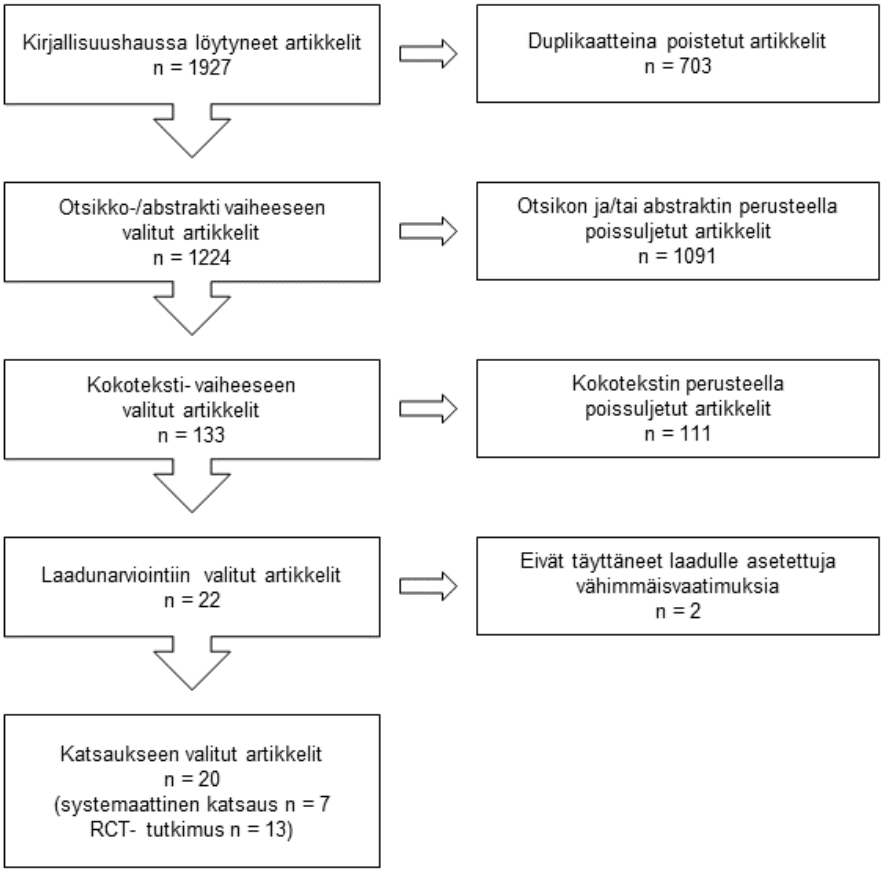
Kirjallisuushaku toteutettiin aikarajauksella 1/2019–10/2020 seuraaviin tietokantoihin: Ovid Medline, Cochrane Central Register of Controlled Trials ja Cochrane Database of Systematic Reviews (Ovid käyttöliittymää käyttäen), PsycINFO ja Cinahl. Haku toteutettiin Cinahl-tietokannasta 3.11.2020 ja muista tietokannoista 5.11.2020. Kirjallisuushaussa käytetyt hakustrategiat on esitetty liitteessä 2.

Katsauksen tuloksia täydennettiin tarkastelemalla aihetta koskevia kansallisia ja kansainvälisiä suosituksia (julkaistu 1/2019 jälkeen). Seuraavat suosituksia laativat tahot tarkistettiin aihetta käsittelevien suositusten löytämiseksi (haku toteutettu 15.10.2020):

- kotimaiset Käypä hoito-suositukset
- englantilaiset NICE (National Institute for Health and Care Excellence) -suositukset
- skotlantilaiset SIGN (Scottish Intercollagiate Guidelines Network) -suositukset
- ruotsalaiset (Socialstyrelsen) hoitosuositukset
- American Society of Addiction Medicine (ASAM) (asam.org)
- Australian Government Department of Health (health.gov.au)
- Australian Clinical Practice Guidelines (clinicalguidelines.gov.au)
- G-I-N Guideline Library muiden ulkomaisten hoitosuositusten osalta

Aineiston valinta

Aineiston läpikäynnissä ja valinnassa hyödynnettiin Covidence-ohjelmistoa (Covidence, 2020), jonne vietiin kirjallisuushakujen tulokset. Kirjallisuushaut tuottivat yhteensä 1927 tutkimusviitettä. Duplikaattien poistamisen jälkeen kirjallisuushaun tulokset läpikäytiin systemaattisesti ensin otsikko- ja abstraktitasolla (n = 1224) ja sitten kokotekstitasolla (n = 133) verraten niitä ennalta määritettyihin mukaanotto- ja poisjättökriteereihin (liite 1). Aineiston kävi läpi kaksi tutkijaa itsenäisesti ja päätös mukaanotosta tai poisjätöstä edellytti tutkijoiden konsensusta. Epäselvissä tapauksissa konsultoitiin kolmatta tutkijaa ja asiantuntijatyöryhmän jäsentä ennen valintapäätöksen tekemistä. Laadun arviointiin (harhan riski) valikoitui mukaanotto- ja poisjättökriteerien perusteella 22 tutkimusta, joista systemaattisia katsauksia oli 9 ja RCT-tutkimuksia 13. Aineiston valinnan eteneminen on kuvattu kuviossa 1.



Kuvio 1 Aineiston valinnan eteneminen

Harhan riskin arviointi

Mukaan valittujen tutkimusten harhan riskin arvioinnissa käytettiin JBI:n kriittisen arvioinnin tarkistuslistoja, joiden tarkoituksena on tunnistaa tutkimusten metodologisia puutteita, jotka voivat lisätä harhan riskiä (JBI, 2020). *Systemaattisten katsausten* arvioinnissa käytettiin JBI:n systemaattisen katsauksen kriittisen arvioinnin tarkistuslistaa. *RCT-tutkimusten* arvioinnissa käytettiin JBI:n harhan riskin tarkistuslistaa satunnaistetuille kontrolloiduille tutkimuksille.

Harhan riski arvioitiin kahden tutkijan toimesta itsenäisesti, ja tarvittaessa konsultoitiin kolmatta tutkijaa konsensuksen saavuttamiseksi. Harhan riskin arvioinnin toteutuksessa hyödynnettiin Covidence-ohjelmistoa. Tähän päivityskatsaukseen mukaan otettujen systemaattisten katsausten alkuperäistutkimusten arvioinnissa hyödynnettiin katsauksen laatijoiden tekemää harhan riskin arviota.

Tähän katsaukseen mukaan otettujen systemaattisten katsausten laadun vähimmäisvaatimuksena oli, että katsauksen kirjallisuushaku oli toteutettu systemaattisesti ja katsauksen laatijat olivat arvioineet katsaukseen mukaan otettujen alkuperäistutkimusten harhan riskiä pätevällä kriteeristöllä. Lopulliseen tutkimusaineistoon valittiin 20 tutkimusartikkelia (7 systemaattista katsausta ja 13 RCT-tutkimusta, kuvio 1), sillä mukaan valituista systemaattisista katsauksista kaksi ei täyttänyt laadun vähimmäiskriteeriä (alkuperäistutkimusten harhan riskiä ei ollut arvioitu). Katsaukseen mukaan valittujen tutkimusten harhan riskin arviot on kuvattu liitteessä 3.

Aineiston analyysi

Katsaukseen mukaan valituista tutkimuksista uutettiin PALKO:n Miepä-jaoston kanssa ennalta määriteltyyn taulukkopohjaan tiedot tutkimusten toteutuksesta ja tuloksista. Tutkimusten tiedot taulukoitiin englanniksi käännösvirheiden riskin pienentämiseksi. Tiedot uutti yksi tutkija toisen tarkistaessa taulukoidut tiedot. Katsaukseen mukaan valittujen tutkimusten taulukko on esitetty liitteessä 4.

Tutkimuksissa käytetyt mittarit päihteiden käytön vähenemisen ja raittiuden (ml. relapsi) mittaamiseen koottiin lisäksi erilliseen taulukkoon (ks. Tulokset).

Eri psykososiaalisten menetelmien vaikuttavuutta koskevien johtopäätösten näytönasteen määrittämisessä käytettiin GRADE-työryhmän asettamia kriteerejä. Aineiston analysoinnin toteuttivat kolme tutkijaa yhdessä (HP, LH, JK). Aineiston analysointia ja johtopäätösten tekemistä tehtiin yhteistyössä asiantuntijaryhmän kanssa.

Tulokset

Tutkitut psykososiaalisten menetelmät

Tämän systemaattisen päivityskatsauksen aikarajauksen puitteissa on tutkittu seuraavien psykososiaalisten menetelmien vaikuttavuutta suhteessa päihteiden käytön vähenemiseen/raittiuteen aikuisilla huume- ja/tai lääkeriippuvaisilla:

- Kognitiivinen käyttäytymisterapia (*cognitive behavioral therapy*, CBT)
    - CBT vrt. tavanomainen hoito
    - CBT vrt. muu psykososiaalinen interventio
    - verkkopohjainen CBT vrt. tavanomainen hoito
    - CBT-intervention yksilöinti vrt. ennalta määritelty toteutustapa (kannabisriippuvuus)
- Palkkiohoito (*contingency management*, CM)
    - CM vrt. tavanomainen hoito (stimulanttiriippuvuus)
    - CM vrt. psykoterapia
    - CM + muu psykososiaalinen interventio vrt. pelkkä muu psykososiaalinen interventio
    - CM + muu psykososiaalinen interventio vrt. pelkkä CM
- Motivoiva haastattelu (*motivational interviewing*, MI)
    - MI vrt. tavanomainen hoito
    - Intensiivinen MI vrt. tavanomainen MI (metamfetamiiniriippuvuus)
- Mindfulness-pohjaiset terapiat
    - Mindfulness-pohjainen terapia vrt. tavanomainen hoito
    - Mindfulness-pohjainen terapia vrt. terveysohjaus
- Kognitiivinen kuntoutus (*cognitive rehabilitation*, CRT)
    - CRT vrt. muu psykososiaalinen interventio
- Yhdistelmähoidot (useita psykososiaalisia menetelmiä sisältävät)
    - Yhdistelmähoito vrt. tavanomainen hoito
    - Yhdistelmähoito vrt. terveysohjaus (heroiiniriippuvuus)

Lisäksi vastaavasti seuraavien psykososiaalisten menetelmien vaikuttavuutta suhteessa päihteiden käytön vähenemiseen/raittiuteen on tutkittu aikuisilla huume- ja/tai lääkeriippuvaisilla, joilla on psykiatrinen komorbiditeetti:

- Kognitiivinen käyttäytymisterapia (*cognitive behavioral therapy*, CBT)
    - CBT vrt. tavanomainen hoito
    - CBT vrt. muu psykososiaalinen interventio
- Palkkiohoito (*contingency management*, CM)
    - CM vrt. muu palkitsemismuoto (stimulanttiriippuvuus)

Seuraavien psykososiaalisten menetelmien vaikuttavuutta suhteessa päihteiden käytön vähenemiseen/raittiuteen on tutkittu lisäksi nuorilla, joilla on kannabisriippuvuutta tai sen muuta ongelmakäyttöä:

- Motivoiva haastattelu (*motivational interviewing*, MI)
    - MI vrt. tavanomainen hoito

Seuraavien psykososiaalisten menetelmien vaikuttavuutta suhteessa päihteiden käytön vähenemiseen/raittiuteen on tutkittu lisäksi nuorilla, joilla on kannabisriippuvuutta tai sen muuta ongelmakäyttöä sekä masennusta:

- Perheterapia
    - Yhdistelmäinterventio (perheterapia ja masennuksen hoitoon liittyvä terapia) vrt. peräkkäin toteutettu interventio

Psykososiaalisten menetelmien vaikuttavuus suhteessa päihteiden käytön vähenemiseen ja raittiuteen

Psykososiaalisten menetelmien vaikuttavuus suhteessa päihteiden käytön vähenemiseen ja/tai raittiuteen vaihteli interventio-verrokki-pareittain (näytönasteet A-D). Tarkasteltujen systemaattisen katsausten ja RCT-tutkimusten tulokset on esitetty tutkimuksittain liitteessä 4. Johtopäätökset menetelmien vaikuttavuudesta ja näytönasteista interventio-verrokki-vertailupareittain on esitetty taulukossa 1.

Taulukko 1 Kooste interventioiden vaikuttavuudesta huume- ja lääkeriippuvuuksien hoidossa suhteessa huumeiden ja lääkeaineiden käytön vähenemiseen/raittiuteen (ml. relapsi) kokonaisuutena

Lähde	Tutkimus-asetelma	Toimintaympä-ristö	Tutkittavat (koh-deryhmä, n)	Päihde	Interven-tio	Vertailu	Tulosmuuttu-jat (päihde-käytön vähe-neminen/ rait-tius/relapsi)	Seu-ranta-aika	Vaikuttavuus (*)	Har-han riski (JBI)	Johtopäätös ja näytön aste (**)
Kognitiivinen käyttäytymisterapia (CBT)											
Alam-mehrjerdi ym. 2019	RCT	Methadone treatment ser-vices (Iran)	Female metha-done patients, adults (n = 120)	Metamph etamine (METH)	Brief-CBT + metha-done treatment	Subtance-related education + metha-done treatment	Reduced fre-quency of METH use, severity of METH de-pendence, number of days of METH use	3 mont hs	Frequency: + Severity: + Days MET used: +	10/13	Näyttö kognitii-visen käyttäyty-misterapian vai-kuttavuudesta aikuisilla päih-deriippuvaisilla tavanomaiseen hoitoon verrat-tuna kohtalaista (B)
Ray ym. 2020	Systematic Review and Meta-analy-sis	Substance use or mental health clinics, medical set-tings, commu-nity (USA, Ger-many)	Adults meeting criteria for sub-stance use dis-order (SUD) (mainly depend-ence, n = 8 RCTs, n = 610 participants)	Alcohol, cocaine	CBT + pharma-cotherapy	Usual care + pharma-cotherapy	Substance use frequency and quantity	Post treat-ment	Frequency: + (effect small, homogene-ous) Quantity: + (effects small to moderate, homogenous)	11/11	
Ray ym. 2020	Systematic Review and Meta-analy-sis	Substance use or mental health clinics, medical set-tings, commu-nity (USA, Ger-many, China)	Adults meeting criteria for SUD (mainly depend-ence, post treat-ment: n = 11 RCTs, n = 1757 participants; fol-low-up: n = 8 RCTs, n = 1557 participants)	Alcohol, cocaine, opioid (*subgroup analyses performed to verify the re-sults*)	CBT + usual care + pharma-cotherapy	Usual care + pharma-cotherapy	Substance use frequency	Post treat-ment, 3–18 mont hs	Frequency: 0	11/11	
AshaRani ym. 2020	Systematic review (nar-rative)	Outpatient set-ting (Iran)	METH depend-ent female adults (n = 80, 1 RCT)	METH	Marlott CBT	Treatment as usual (TAU)	Relapse rate	N/A	+	10/11	

Schäfer ym. 2019	RCT	Substance abuse treatment departments (Germany)	Females with co-occurring post-traumatic stress disorder (PTSD) + SUD (94,5 % dependence, n = 343)	Alcohol, sedatives, cannabis, stimulants, opiates, cocaine	Relapse Prevention Training + TAU	TAU	Number of substance-free days, addiction severity	6 months	Substance-free days: + (small effect size) Addiction severity: 0	10/13	Näyttö kognitiivisen käyttäytymisterapian (relapse prevention training) vaikuttavuudesta tavanomaiseen hoitoon verrattuna aikuisilla päihderiippuvaisilla, joilla psykiatrinen komorbiditeetti, heikkoa (C)
Ray ym. 2020	Systematic Review and Meta-analysis	Substance use or mental health clinics, medical settings, community (USA, the Netherlands, Switzerland)	Adults meeting criteria for SUD (mainly dependence, post treatment: n = 11 RCTs, n = 1008 participants, follow-up: n = 6 RCTs, n = 548 participants)	Alcohol, cocaine, opioid, poly drug use (*subgroup analyses performed to verify the results*)	CBT + pharmacotherapy	Specific therapy + pharmacotherapy	Substance use frequency and quantity	Post treatment, 2–12 months	Frequency: 0 Quantity: 0	11/11	Kognitiivisen käyttäytymisterapian vaikuttavuudesta aikuisilla päihderiippuvaisilla ei näyttöä verrattaessa toiseen psykososiaaliseen interventioon (B)
Ii ym. 2019	Systematic review and meta-analysis	Clinic, inpatient, outpatient (USA)	Individuals with substance dependence/ SUD (n = 3 RCTs, n = 275 participants)	Opioid, poly/ other substance use	Acceptance and commitment therapy (ACT, third wave CBT) with and without methadone treatment	First line psychosocial interventions (intensive 12-step facilitation without methadone treatment, drug counselling)	Substance discontinuation	NA	0	9/11	

Schäfer ym. 2019	RCT	Substance abuse treatment departments (Germany)	Females with co-occurring PTSD + SUD (94,5 % dependence, n = 343)	Alcohol, sedatives, cannabis, stimulants, opiates, cocaine	Relapse Prevention Training + TAU	Seeking Safety + TAU	Number of substance-free days, ASI-lite drug use severity scores	6 months	Substance-free days: 0 Drug use severity: 0	10/13	Näyttö kognitiivisen käyttäytymisterapian vaikuttavuudesta verrattaessa toiseen psykososiaaliseen interventioon aikuisilla päihderiippuvaisilla, joilla psykiatrinen komorbiditeetti, hyvin heikkoa (D)
Hides ym. 2019	Systematic review and meta-analysis	Outpatient clinic (USA)	Adult veterans with alcohol, cannabis and/or stimulant dependence + major depressive diagnosis (2 RCTs, n = 296 participants)	Alcohol, cannabis, stimulant	Integrated CBT	12-step facilitation	Days abstinent	Post-treatment, 6-12 months	Post treatment: 0 6-12 months: +	11/11	
Verkkopohjaiset ja digitaaliset ohjelmat											
Moore ym. 2019	RCT	Opioid treatment organization (USA)	Adults currently receiving methadone treatment (n = 82)	Opioid, cocaine	Computer-based CBT (Recovery Line) + TAU (incl. methadone treatment)	TAU (incl. methadone treatment)	Days per month of self-reported illicit drug abstinence, percent of urine screens negative for illicit drugs	1–3 months	Self-reported: + Urine analysis: 0	8/13	Näyttö verkkopohjaisen kognitiivisen käyttäytymisterapian vaikuttavuudesta aikuisilla päihderiippuvaisilla tavanomaiseen hoitoon verrattuna hyvin heikkoa (D)
Silva ym. 2020	RCT	Outpatient treatment centers (USA)	Adults with SUD (90 % dependence, n = 83)	Cannabis, alcohol, cocaine, opioids, benzodiazepines, other	CBT4CBT (online CBT platform, cultural adaptation) + TAU	TAU	Changes in DSM-IV dependence criteria (criteria count, proportion of those continuing to meet dependence criteria)	End-of-treatment (8 weeks)	Criteria count: + Proportion meeting criteria: 0	8/13	
Tetrault ym. 2020	RCT	Addiction Recovery Clinic (USA)	Adults with SUD (mainly dependence, n = 58)	Alcohol, cocaine, benzodiazepines, cannabis	CBT4CBT + standard care (incl. medication)	Standard care (incl. medication)	% days of substance use, % days abstinent, urine toxicology screens	End of treatment (8 weeks)	% days of substance use: 0 % days abstinent: 0 urine toxicology screens: 0	11/13	

Psykososiaalisen intervention yksilöinti											
Stephens ym. 2020	RCT	Community (USA)	Adults with cannabis dependence (n = 87)	Cannabis	Providing treatment "as needed": Motivational enhancement therapy (MET) + CBT	Fixed dose: MET + CBT	Percentage of cannabis use days, periods of use per day, abstinence from any use	34 months	Cannabis use days: 0 Daily periods of use: 0 Abstinence: - (4 months), 0 (any other follow-up assessments)	7/13	Näyttö kognitiivisen käyttäytymisterapian yksilöinnin vaikuttavuudesta aikuisilla kannabisriippuvaisilla ennalta määrättyyn toteutustapaan verrattuna heikkoa (C)
Litt ym. 2020	RCT	Setting NA (USA)	Adults with cannabis dependence (n = 198)	Cannabis	Individualized assessment and treatment program (IATP): IATP only or IATP + contingency management (CM)	MET-CBT: MET-CBT only or MET-CBT + CM	Probability of abstinence, proportion days abstinent (PDA)	14 months	Probability: + PDA: +	10/13	
Palkkiohoito											
Sheridan Rains ym. 2020	Systematic review and meta-analysis	Community-based substance misuse treatment centres, clinics, university (USA)	Adults with SUD (mainly dependence, n = 5 RCTs, n = 293 participants)	Cocaine, tobacco (*tobacco: n = 2 RCTs, weight total 12.8 %*)	CM only	TAU	Point prevalence abstinence (PPA)	Treatment end	+ (Quality of evidence moderate)	11/11	Näyttö palkkiohoidon vaikuttavuudesta tavanomaiseen hoitoon verrattuna aikuisilla, joilla stimulanttiriippuvuutta, kohtalaista (B)
AshaRani ym. 2020	Systematic review (narrative)	Outpatient setting (USA)	Treatment-seeking METH dependent subjects (n = 1 RCT, n = 120 participants)	METH	CM	TAU	Abstinence	16 weeks	+	10/11	
AshaRani ym. 2020	Systematic review (narrative)	Outpatient setting (USA)	Treatment-seeking participants with METH dependence (n = 1 RCT, n = 118)	METH	CM (duration of CM)	TAU	Abstinence	1-, 2, and 4-month	+ (Longer duration CM)	10/11	

AshaRani ym. 2020	Systematic review (narrative)	Outpatient setting (USA)	Non treatment-seeking METH dependent men who have sex with men (n = 1 RCT, n = 131)	METH	CM	TAU(?)	Reduction in METH use	7-12 months	+	10/11	
Sheridan Rains ym. 2020	Systematic review and meta-analysis	Community-based substance misuse treatment centres, research clinic or university	Adults with SUD (mainly dependence, n = 7 RCTs, n = 501 participants)	Cocaine, opioids, methamphetamine, tobacco *(tobacco: n = 1 RCT, weight 5,2 %)*	CM only	Psychotherapy only	Point prevalence abstinence (PPA)	Treatment end	0 (5/7 studies reported CM only was more effective than psychotherapy only)	11/11	Palkkiohoidon vaikuttavuudesta aikuisilla päihderiippuvaisilla ei näyttöä verrattaessa pelkkään psykoterapiaan (B)
Stuart ym. 2020	Systematic review	Community mental health and addiction treatment agency (USA)	Adults with METH, amphetamine or cocaine dependence + schizophrenia, schizoaffective disorder, bipolar I or II disorder, or major recurrent depressive disorder (n = 1 RCT, n = 176)	METH, amphetamine, cocaine	CM + TAU	Non-contingent rewards + TAU	Days of stimulant use, stimulant negative urine sample	4-24 weeks	Days of stimulant use: + Stimulant negative urine test: +	11/11	Näyttö palkkiohoidon vaikuttavuudesta muuhun palkitsemismuotoon verrattuna aikuisilla, joilla stimulanttiriippuvuus ja psykiatrinen komorbiditeetti, kohtalaista (B)
Litt ym. 2020	RCT	Setting NA (USA)	Adults with cannabis dependence (n= 198)	Cannabis	IATP + CM	IATP only	Probability of abstinence, proportion days abstinent (PDA), longest duration of abstinence (LDA)	14 months	Probability: 0 (IATP only was the most successful based on means) PDA: 0 LDA: +	10/13	Palkkiohoidon vaikuttavuudesta (probability of abstinence, PDA, PPA) psykososiaalisen intervention lisänä ei näyttöä verrattaessa pelkkään psykososiaaliseen interventioon
Litt ym. 2020	RCT	Setting NA (USA)	Adults with cannabis dependence (n= 198)	Cannabis	MET-CBT + CM	MET-CBT only	Probability of abstinence, PDA, LDA	14 months	Probability: 0 PDA: 0 LDA: +	10/13	

Sheridan Rains ym. 2020	Systematic review and meta-analysis	Community-based substance misuse treatment centres, research clinic or university	Adults with SUD (mainly dependence, n = 7 RCTs, 511 participants)	Cocaine, opioids, METH, tobacco *(tobacco: n = 1 RCT, weight 5,6 %)*	CM + psychotherapeutic intervention (CBT and/or MET or other)	Psychotherapeutic intervention only	Point prevalence abstinence (PPA)	Treatment end	0 (Quality of evidence was rated as moderate)	11/11	aikuisilla päihderiippuvaisilla (B) Näyttö palkkiohoidon vaikuttavuudesta (LDA) psykososiaalisen intervention lisänä pelkkään psykososiaaliseen interventioon verrattuna aikuisilla kannabisriippuvaisilla heikkoa (C)
Sheridan Rains ym. 2020	Systematic review and meta-analysis	Community-based substance misuse treatment centres, research clinic or university	Adults with SUD (mainly dependence, PPA treatment end n = 10 RCTs, n = 786 participants; follow-up n = 6 RCTs, n = 584 participants; self-report treatment end n = 6 RCTs, n = 458 participants; follow-up n = 4 RCTs, n = 316 participants)	Cocaine, opioids, METH, cannabis, polystubstance, tobacco *(tobacco: PPA treatment end only, n= 1 RCT, weight 0,4 %)*	CM + psychotherapeutic intervention (CBT and/or MET or other)	CM only	Point prevalence abstinence (PPA), self-reported days of substance use	Treatment end, 3 months	PPA (treatment end & follow-up): 0 Self-reported (treatment end & follow-up): 0	11/11	Toisen psykososiaalisen intervention vaikuttavuudesta palkkiohoidon lisänä pelkkään palkkiohoitoon verrattuna ei näyttöä aikuisilla päihderiippuvaisilla (B)
Motivoiva haastattelu (MI)											
Oveisi ym. 2020	RCT	Drug treatment center (Iran)	Women with drug addiction receiving substance intervention (n = 60)	METH, heroin, opium, other drugs	Group-based motivational interviewing (MI)	Standard care	Relapse	2 months	+	9/13	Näyttö motivoivan haastattelun vaikuttavuudesta (relapse) tavanomaiseen hoitoon verrattuna aikuisilla päihderiippuvaisilla heikkoa (C)

AshaRani ym. 2020	Systematic review (narrative)	Outpatient setting (USA)	METH dependent individuals (n = 380, 2 RCTs)	METH	Intensive MI	Standard MI	METH use	9 weeks – 6 months	0 (Both IMI and SMI helped to reduce METH use and drug addiction severity)	10/11	Intensiivisenä toteutetun motivoivan haastattelun vaikuttavuudesta verrattuna tavanomaiseen motivoivaan haastatteluun ei näyttöä aikuisilla metamfetamiiniriippuvaisilla (B)
Steele ym. 2020	Meta-analysis	Hospital, primary care, community, school	Adolescents aged 12 to 21 with problematic use/SUD (cannabis use days: n = 13 RCTs, n = 2389 participants; cannabis abstinence n = 6 RCTs, n = 1119 participants)	Cannabis	MI	Psychoeducation/ TAU	Cannabis use days, cannabis abstinence		Cannabis use days: 0 (strength of evidence moderate) Cannabis abstinence: + (strength of evidence insufficient)	10/11	Näyttö motivoivan haastattelun vaikuttavuudesta tavanomaiseen hoitoon verrattuna nuorilla, joilla kannabisriippuvuutta tai sen muuta ongelmakäyttöä, hyvin heikkoa (D)
Mindfulness-pohjaiset terapiat											
Price ym. 2019a	RCT	Clinics offering outpatient, abstinent-based SUD programs (USA)	Women enrolled intensive outpatient program (n = 217)	Stimulants, alcohol, narcotics, cannabis, other opiates or analgesics	Mindful Awareness in Body-oriented Therapy	TAU	Substance use (abstinence), relapse	3 months (immediate effect)	Abstinence: + Relapse: 0 (relapse 30% among MABT participants, WHE 47% and TAU 43%)	10/13	Näyttö mindfulness-pohjaisten interventioiden vaikuttavuudesta tavanomaiseen verrattuna päihderiippuvaisilla

Price ym. 2019b	RCT	Clinics offering outpatient, abstinent-based SUD programs (USA)	Women enrolled intensive outpatient program (n = 217)	Stimulants, alcohol, narcotics, cannabis, other opiates or analgesics	Mindful Awareness in Body-oriented Therapy	TAU	Substance use (abstinence), relapse	6 and 12 months (long term effect)	Abstinence: + (6 and 12 months) Relapse: 0	10/13	naisilla heikkoa (C)
Price ym. 2019a	RCT	Clinics offering outpatient, abstinent-based SUD programs (USA)	Women enrolled intensive outpatient program (n = 217)	Stimulants, alcohol, narcotics, cannabis, other opiates or analgesics	Mindful Awareness in Body-oriented Therapy	Women's health education	Substance use (abstinence), relapse	3 months (immediate effect)	Abstinence: 0 Relapse: 0	10/13	Mindfulness-pohjaisten interventioiden vaikuttavuudesta terveysohjaukseen verrattuna ei näyttöä päihderiippuvaisilla naisilla (C)
Price ym. 2019b	RCT	Clinics offering outpatient, abstinent-based SUD programs (USA)	Women enrolled intensive outpatient program (n = 217)	Stimulants, alcohol, narcotics, cannabis, other opiates or analgesics	Mindful Awareness in Body-oriented Therapy	Women's health education	Substance use (abstinence), relapse	6 and 12 months (long term effect)	Abstinence: 0 Relapse: 0	10/13	

Perheterapia											
Hides ym. 2019	Systematic review and meta-analysis	Outpatient substance use treatment services (USA)	1 study (n = 170, 13-18-year-old adolescents with depressive disorder and comorbid substance use disorder	Cannabis (94 %), alcohol, other non-nicotine substance	Integrated Functional Family Therapy (FFT) + Coping with Depression (CWD)	Sequenced: 1. FFT, 2. CWD	Daily substance use	Post treatment, 12 months	Post treatment: - 12 months: -	11/11	Näyttö interventioiden peräkkäisen toteutustavan (sequenced) vaikuttavuudesta yhdistelmänä (integrated) toteutettuun interventioon verrattuna nuorilla, joilla kannabisriippuvuutta tai sen muuta ongelmakäyttöä ja masennusta, heikkoa (C)
Hides ym. 2019	Systematic review and meta-analysis	Outpatient substance use treatment services (USA)	1 study (n = 170, 13-18-year-old adolescents with depressive disorder and comorbid substance use disorder	Cannabis (94 %), alcohol, other non-nicotine substance	Integrated Functional Family Therapy (FFT) + Coping with Depression (CWD)	Sequenced: 1. CWD, 2. FFT	Daily substance use	Post treatment, 12 months	Post treatment: 0 12 months: -	11/11	
Kognitiivinen kuntoutus											
Rezapour ym. 2019	RCT	Methadone maintenance treatment residential centre (Iran)	Adults with opioid use disorder (n = 117)	Opioid, METH, alcohol, sedative drugs	Cognitive rehabilitation (CRT) + usual clinical care (incl. methadone treatment)	Group sessions (painting) + usual clinical care (incl. methadone treatment)	Drug use	6 months	Opiate use: + Stimulant use: 0 (whole sample), + (only subjects with a history of methamphetamine use)	8/13	Näyttö kognitiivisen kuntoutuksen vaikuttavuudesta toiseen psykososiaaliseen interventioon verrattuna aikuisilla päihderiippuvaisilla heikkoa (C)

Yhdistelmähoidot (useita psykososiaalisia menetelmiä sisältävät)											
Marsden ym. 2019	RCT	Community addictions clinic (UK)	Adults with opioid or cocaine dependence, or both (n = 273)	Opioid, cocaine, benzodiazepines	Personalised psychosocial intervention + 12-step group facilitation + behavioural activation for depression + techniques to engage partners and family members in participants' treatment + methadone/ buprenorphine treatment	Treatment as usual only (incl. methadone/ buprenorphine treatment)	Treatment response (no reported use of opioids or cocaine), number of days abstinent from opioids and cocaine	18 weeks	Treatment response: + Abstinent days: +	10/13	Näyttö psykososiaalisen yhdistelmähoidon vaikuttavuudesta tavanomaiseen hoitoon verrattuna aikuisilla päihderiippuvaisilla vahvaa (A)
AshaRani ym. 2020	Systematic review (narrative)	Outpatient setting (USA)	METH dependent subjects (n = 1762, 2 RCTs)	METH	Matrix model interventions	TAU	Reduction in MET use, days of abstinence	18-36 months	MET use: + Abstinence: +	10/11	
Sheridan Rains ym. 2020	Systematic review and meta-analysis	Community-based substance misuse treatment centres, research clinic or university	Adults with SUD (mainly dependence, n = 5 RCTs, n = 302 participants)	Cocaine, tobacco *(tobacco: n= 2 RCTs, weight total 15,7 %)*	CM + psychotherapy	TAU	Point prevalence abstinence (PPA)	Treatment end	+	11/11	

Sheridan Rains ym. 2020	Systematic review and meta-analysis	Community-based substance misuse treatment centres, research clinic or university	Adults with SUD (mainly dependence, n = 4 RCTs, n = 240 participants)	Cocaine, tobacco *(tobacco: n= 1 RCT, weight 22,6 %)*	Different types of psychotherapeutic packages	TAU	Point prevalence abstinence (PPA)	Treatment end	+	11/11	
Chen ym. 2019	RCT	Compulsory drug rehabilitation center (China)	Heroine dependent adult males receiving detoxification treatment (n = 96)	Heroin	Motivation-Skill-Desensitization-Mental Energy (MSDE), motivational inter-viewing, coping skills training, eye movement desensitization and reprocessing, and mindfulness-based psychotherapy)	Group health education sessions on coping skills	Abstinence rates	36 months	0	11/13	Psykososiaalisen yhdistelmähoidon vaikuttavuudesta terveysohjaukseen verrattuna ei näyttöä aikuisilla heroiiniriippuvaisilla (D)

*) + = intervention vaikuttavampi kuin kontrolli, 0 = ei tilastollisesti merkitsevää eroa, - = kontrolli vaikuttavampi kuin interventio

**) GRADE: A = High, B = Moderate, C = Low, D = Very low

Värikoodien selitteet: Stimulantit | Kannabis | Opioidit | Eri päihteitä

Muut psykososiaalisia menetelmiä koskevat tulokset

Kustannukset

Interventioiden kustannuksia ja kustannusvaikuttavuutta oli arvioitu ainoastaan yhdessä RCT-tutkimuksessa (Marsden ym., 2019), jossa vertailtiin opioidiriippuvuuden hoidosta aiheutuneita kustannuksia psykososiaalisen interventioryhmän (yhdistelmähoito) ja kontrolliryhmän (tavanomainen hoito) välillä. Vertailu osoitti, että hoidon kustannukset olivat korkeammat psykososiaalisen intervention ryhmässä. Psykososiaalinen interventio oli kuitenkin laskentatavasta riippuen 50–67 % todennäköisemmin kustannusvaikuttavampi kuin tavanomainen hoito. Ryhmien välillä ei havaittu eroja sosiaali- ja terveyspalveluiden käytössä eikä rikollisuudessa tai työstä poissaoloissa, mutta psykososiaaliseen interventioryhmään kuuluvat viettivät enemmän öitä sairaalassa. (Marsden ym., 2019.)

Haitat

Kolmessa RCT-tutkimuksessa (Marsden ym., 2019, Moore ym., 2019, Schäfer ym., 2019) raportoitiin interventioihin liittyviä haittatapahtumia. Kahdessa tutkimuksessa arvioitiin, että haittatapahtumat eivät liittyneet tutkimukseen tai tutkimuksen kohteena olevaan interventioon (Marsden ym., 2019, Moore ym., 2019). Yhdessä kognitiivista käyttäytymisterapiaa arvioineessa tutkimuksessa (Schäfer ym., 2019), jossa tutkittavilla oli päihderiippuvuuden lisäksi traumaperäinen stressihäiriö, havaittiin tutkimuksen aikana yhteensä 122 vakavaa haittatapahtumaa. Näistä haittatapahtumista ainoastaan kolme (lisääntyneet itsetuhoiset ajatukset) arvioitiin liittyvän todennäköisesti ja yksi (osastohoidon tarve) liittyi varmasti tutkimukseen osallistumiseen. Ryhmien välillä ei havaittu eroja haittatapahtumien määrässä, jolloin ne saattoivat liittyä tutkittavien psykiatriseen komorbiditeettiin (traumaperäinen stressihäiriö). Traumaperäisen stressihäiriön terapeuttinen hoito voi ajoittain lisätä psyykkistä oireilua johtuen häiriön luonteesta. (Schäfer ym., 2019.) Mindfulness-pohjaisen intervention yhteydessä raportoitiin, ettei lyhyen aikavälin arvioinnissa ilmennyt haittatapahtumia (Price ym., 2019).

Interventioon sitoutumien

Tutkittavien interventioon sitoutumista arvioitiin useassa tutkimuksessa. Ne tutkimukset, jotka selvittivät tilastollista eroavaisuutta tutkittavien hoitoon sitoutumisessa koe- ja kontrolliryhmien välillä, eivät havainneet merkitsevää eroa ryhmien välillä (Hides ym., 2019, Litt ym., 2020, Moore ym., 2019, Price ym., 2019a;b, Rezapour ym., 2019, Schäfer ym., 2019). Meta-analyysissä, jossa verrattiin kognitiivista käyttäytymisterapiaa ja kahdentoista askeleen ohjelmaa, ei havaittu myöskään eroa ryhmien välillä hoidossa pysymisessä (treatment retention) (RR 0.95, 95 % CI 0.72–1.25; 2 tutkimusta, 270 tutkittavaa) tai osallistumisessa (attendance) (MD -1.27, 95 % CI -6.10–3.56; 2 tutkimusta, 296 tutkittavaa). Molempien analyysien heterogeenisyysarvot olivat kuitenkin suuria (I^2 = 74 %, P = 0.05; I^2 = 67 %, P = 0.08).

Hoitoon sitoutuneisuus vaihteli kuitenkin tutkimuksittain. Yhdessä RCT-tutkimuksessa 59 % tutkittavista (n = 79/135) osallistui yli kolmannekseen kognitiivisen käyttäytymisterapian tapaamiskerroista, jolloin heidät luokiteltiin sitoutuneiksi interventioon (Marsden ym., 2019). Toisessa RCT-tutkimuksessa sitoutuneisuuden raja asetettiin 8/14 sessioon, ja tämän täytti 36,9 % (n = 41) tutkittavista “Seeking safety” -ryhmän osalta ja 28,7 % (n = 33) “Relapse Prevention Training” -ryhmän osalta (Schäfer ym., 2019). Verkkopohjaista kognitiivisen käyttäytymisterapian menetelmää (CBT4CBT) arvioineessa tutkimuksessa tutkittavat suorittivat keskimäärin 5 ohjelman seitsemästä moduulista (Silva ym., 2020). Toisessa samaa menetelmää arvioineessa tutkimuksessa 77 % (n = 23) suoritti vähintään ensimmäisen moduulin ja 70 % kaikki seitsemän moduulia (Tetrault ym., 2020).

Tutkimuksessa, jossa tarkasteltiin psykososiaalista interventiota (MET + CBT), jossa tapaamiskertojen määrää yksilöitiin potilaan tarpeiden mukaan, tutkittavista 77 % osallistui ensimmäiseen neljään tapaamiskertaan yksilöidyn intervention ryhmässä. Näistä tutkittavista 37 % (n = 16) jatkoi tapaamisiin osallistumista tämän jälkeen. He osallistuivat vielä keskimäärin 8,5 tapaamiskertaan (SD 3.42, range 1–30). Ennalta määritettyjen tapaamiskertojen interventioryhmään osallistuneista 66 %

osallistui kaikkiin yhdeksään tapaamiskertaan. Samassa ryhmässä tutkittavat osallistuivat keskimäärin 7,84 tapaamiskertaan. (Stephens ym., 2020.)

Muut tulosmuuttujat

Muita tutkimuksissa tarkasteltuja tulosmuuttujia olivat motivaatio muutokseen, psykologinen hyvinvointi, (Alammehrjerdi ym., 2019) työkyky ja sosiaalinen toimintakyky (Alammehrjerdi ym., 2019, Marsden ym., 2019), päihteen himo (AshaRani ym., 2020, Chen ym., 2019, Price ym., 2019a;b), riskikäyttäytyminen, terveyttä edistävä käyttäytyminen, alkoholin käyttö, (AshaRani ym., 2020), psykiatrinen komorbiditeetti, masennus, ahdistus, traumaperäiset oireet, tai aggressio (AshaRani ym., 2020, Chen ym., 2019, Marsden ym., 2019, Price ym., 2019a;b, Schäfer ym., 2019), valmius muutokseen (Chen ym., 2019), marihuanaan liittyvät ongelmat (Litt ym., 2020, Stephens ym., 2020), selviytyminen (coping) (Litt ym., 2020, Moore ym., 2019), minäpystyvyys (self-efficacy) (Litt ym., 2020), tietoisen läsnäolon taidot, tunteiden säätely (emotion regulation) (Price ym., 2019a;b, Schäfer ym., 2019), sekä kognitiivinen toimintakyky kuten työmuisti, ajattelun nopeus ja huomion keskittäminen (Rezapour ym., 2019) (liite 4).

Kognitiivinen käyttäytymisterapia oli vaikuttavaa tukemaan metadonikorvaushoidossa olevien naisten motivaatiota tehdä muutos ($t = 17.5$, $p < 0.001$; seuranta: $t = 15.1$, $p < 0.001$), psykologista hyvinvointia ($t = -13.5$, $p < 0.001$; seuranta: $t = -14.4$, $p < 0.001$), ja sosiaalista toimintakykyä ($t = -3.6$, $p = 0.001$; seuranta: $t = -3.5$, $p = 0.001$) kontrolliryhmään verrattuna intervention jälkeen ja kolmen kuukauden seurantamittauksessa (Alammehrjerdi ym., 2019). Myös heroiiniriippuvaisilla miehillä valmius tehdä muutos kasvoi alkumittauksesta loppumittaukseen, kun interventiona oli useita psykososiaalisia menetelmiä sisältävä hoito (Chen ym., 2019).

Kognitiivinen käyttäytymisterapia (53.8 vs. 71.7, $p = 0.001$) vähensi päihteen himoa interventioryhmällä verrattuna kontrolliryhmään metamfetamiiniriippuvaisilla aikuisilla. Vastaavanlainen tulos havaittiin kahdentoista askeleen ohjelmalla. (AshaRani ym., 2020.) Lisäksi useita psykososiaalisia menetelmiä sisältävä ohjelma vähensi päihteen himoa heroiiniriippuvaisilla miehillä ($p < 0.001$) (Chen ym., 2019). Mindfulness -pohjainen ohjelma oli potentiaalinen vähentämään päihteen himoa päihderiippuvaisilla naisilla, mutta tulos intervention jälkeen oli vain lähes tilastollisesti merkitsevä ($x^2 = 5.88$, $P = 0.053$). Kolmen, kuuden ja kahdentoista kuukauden seurannassa päihteen himo väheni mindfulness -ryhmällä verrattuna tavanomaista hoitoa saaneeseen ryhmään (3 kk: mean difference = -3.2; 95 % CI: -0.7; 6 kk: mean difference = -5.5; 95 % CI: −8.5–−2.5; 12 kk: mean difference = -4.0; 95 % CI: −7.4–−0.5). (Price ym., 2019a;b.)

Useita psykososiaalisia menetelmiä sisältävä interventio vähensi masennuksen oireita ($p < 0.001$) ja aggressiota ($p = 0.033$) heroiiniriippuvaisilla miehillä (Chen ym., 2019). Opioidi- ja kokaiiniriippuvaisilla aikuisilla yksilöity psykososiaalinen interventio ei ollut vaikuttavaa tavanomaiseen hoitoon verrattuna ahdistukseen, masennukseen tai kognitiiviseen toimintakykyyn, mutta työ- ja sosiaaliseen toimintakykyyn vaikutukset nähtiin 18 viikon kohdalla ($p = 0.016$, effect size 0.27, 95 % CI 0.05–0.49). (Marsden ym., 2019). Mindfulness -pohjainen interventio vähensi masennusta päihderiippuvaisilla naisilla verrattuna tavanomaiseen hoitoon, kun analyysissä otettiin huomioon intervention toteutuminen (intervention-dose analysis) ($x^2 = 5.24$, $P = 0.02$) (Price ym., 2019a;b). Myös “Seeking safety” -interventiolla oli vaikutusta masennusoireisiin päihderiippuvaisilla naisilla, jotka kärsivät posttraumaattisesta stressihäiriöstä, kun interventiota verrattiin tavanomaiseen hoitoon (Schäfer ym., 2019). Samassa tutkimuksessa posttraumaattisen stressihäiriön oireiden vakavuus väheni kaikilla ryhmillä (post-treatment–3kk:n seuranta = 1.38, 95 % CI 0.15–2.61, $p = 0.028$; 3kk:n–6kk:n seuranta = 0.89, 95 % CI −0.34–2.12, $p = 0.155$) ja tunteiden säätely parani erityisesti “Seeking safety” -interventioryhmällä verrattuna tavanomaiseen hoitoon (Seeking safety–TAU = −6.86, 95% CI −11.80–−1.91, $p = 0.007$) (Schäfer ym., 2019). Myös mindfulness -pohjainen interventio oli vaikuttava tunteiden säätelyyn mindfulness- ja tietoisuustaitojen lisäksi päihderiippuvaisilla naisilla, kun sitä verrattiin tavanomaiseen hoitoon tai terveysohjaukseen (Price ym., 2019a;b).

Kannabikseen liittyvät ongelmat vähenivät merkittävästi seurannan aikana ja säilyivät matalalla 14 kuukauden seurannassa kannabisriippuvaisilla aikuisilla, jotka saivat psykososiaalista hoitoa (Litt ym., 2020, Stephens ym., 2020). Kannabiksen vähentämiseen/lopettamiseen liittyvä minäpystyvyys kasvoi psykososiaalisen hoidon seurauksena alku- ja loppumittausten välillä kannabisriippuvaisilla aikuisilla (Litt ym., 2020).

Selviytymiskeinoissa (coping) ei ollut eroa verkkopohjaista kognitiivista käyttäytymisterapiaa saavien ja tavanomaista hoitoa saavien välillä metadonikorvaushoidossa olevilla aikuisilla (Moore ym., 2019). Aikuisilla kannabisriippuvaisilla selviytymiskeinojen pistemäärä puolestaan nousi alkumittauksesta loppumittaukseen ja oli tilastollisesti parempaa ryhmällä, joka sai yksilöityä kognitiivista käyttäytymisterapiaa verrattuna kontrolliryhmiin (Litt ym., 2020).

Palkkiohoito ja matrix model vähensivät riskikäyttäytymistä interventioryhmillä verrattuna tavanomaiseen hoitoon metamfetamiiniriippuvaisilla aikuisilla, ja palkkiohoidolla oli lisäksi positiivinen vaikutus terveyttä edistävään käyttäytymiseen (AshaRani ym., 2020). Samalla potilasryhmällä intensiivisen motivoivan haastattelun ryhmässä olevilla havaittiin vähemmän psykiatrisia ongelmia ja myös alkoholin käyttö väheni, kun verrokkina olivat tavanomaisena toteutetun motivoivan haastattelun ryhmä (AshaRani ym., 2020).

Kognitiivinen kuntoutus vaikutti opioidiriippuvaisten aikuisten kognitiiviseen toimintakykyyn positiivisesti kolmen kuukauden mittauspisteissä eri mittareilla mitattuna. Suurin vaikutus kognitiivisella kuntoutuksella oli työmuistiin. (Rezapour ym., 2019.)

Tutkimuksissa käytetyt mittarit

Tutkimuksissa käytetyt mittarit päihteiden vähentämisen tai raittiuden (ml. relapsi) mittaamiseen on koottu taulukkoon 2. Taulukossa esitetyt mittarit kuvataan alla.

Timeline follow-back (TLFB)

Timeline follow-back (TLFB) on takautuva päiväkirjamenetelmä viimeaikaisen päihteidenkäytön selvittämiseksi (Sobell ja Sobell 1981). Menetelmässä kysytään, kuinka paljon päihdettä on käyttänyt minäkin päivänä kalenteria apuna käyttäen. Menetelmä on kehitetty alun perin alkoholin kulutuksen selvittämiseksi. TLFB menetelmä soveltuu myös muiden päihteiden kuin alkoholin käytön selvittämiseen (Sobell ym., 1996a, Fals-Stewart ym., 2000), ja sitä voidaan käyttää luotettavasti myös puhelin- tai tietokonevälitteisesti (Sobell ym., 1996b).

The Addiction Severity Index –Lite (ASI-Lite)

Addiction Severity Index sisältää seitsemän osa-aluetta: alkoholin ja päihteiden käyttö, lääketieteellinen ja psykiatrinen terveys, työllisyys / toimeentulo, perhe- ja sosiaaliset suhteet sekä laiton toiminta. Osa-alueiden kysymykset koskevat viimeisten 30 päivän ajanjaksoa, mutta myös muutoin elämäntilannetta ja toimintakykyä. (McLellan ym., 1992.) Addiction Severity Index -Lite on todettu psykometrisiltä ominaisuuksiltaan luotettavaksi (Cacciola ym., 2007).

Severity of Dependence Scale (SDS)

Severity of Dependence -asteikolla (SDS) arvioidaan säännöllisen päihteiden käytön ja riippuvuuden astetta. Mittari sisältää viisi kohtaa, jotka kaikki koskevat riippuvuuden psykologisia komponentteja. Pistealue mittarissa on 0–15 ja raja-arvo 4 osoittaa riippuvuutta. Mittari on osoitettu psykometrisilta ominaisuuksiltaan luotettavaksi arvioitaessa eri huumeita (heroiini, kokaiini, amfetamiini) käyttävien tai metadonikorvaushoidossa olevien riippuvuuden vakavuuden astetta. (Gossop ym., 1995.)

Opiate Treatment Index (OTI)

Opiate Treatment -indeksillä (OTI) arvioidaan opiaatteja käyttävien hoidon vaikutuksia. Se sisältää kuusi itsenäistä aihealuetta: päihteen käyttö, HIV-riskikäyttäytyminen, sosiaalinen toimintakyky, laiton toiminta, terveys ja psykologinen sopeutuminen. Mittari on arvioitu psykometrisiltä ominaisuuksiltaan luotettavaksi. (Darke ym., 1992.)

Relapse Prediction Scale (RPS)

Relapse Prediction Scale (RPS) mittarilla arvioidaan riskiä palata huumeiden käyttöön. Mittari sisältää 45 kohtaa, jotka sisältävät esimerkkitilanteen, mihin peilaten vastaaja arvioi kykyään vastustaa päihteen käyttöä ja todennäköisyyttä käyttää päihdettä kyseisessä tilanteessa. Jokainen mittarin kohta arvioidaan 5-portaisella Likert asteikolla. Mittarin pisteet vaihtelevat välillä 0–180 erikseen kyvylle vastustaa päihdettä (strenght of urges) ja todennäköisyydelle käyttää päihdettä (likelihood of using). Suurempi pistemäärä indikoi suurempaa riskiä käyttää päihdettä. (Wright ym., 1993.)

Taulukko 2 Kooste tutkimuksissa käytetyistä mittareista

Lähde	Substance use / abstinence	Severity of substance dependence	Relapse
RCT-TUTKIMUKSET			
Alammehrjerdi ym. 2019	Timeline Follow Back (TLFB), urine analysis, Opiate Treatment Index (OTI)	Severity of Dependence Scale (SDS)	
Chen ym. 2019	Timeline Follow Back (TLFB)		
Litt ym. 2020	Timeline Follow Back (TLFB), urine tests		
Marsden ym. 2019	Self-report, urine tests		
Moore ym. 2019	Addiction Severity Index -Lite, urine tests		
Oveisi ym. 2020	Self-report		Relapse Prediction Scale (RPS)
Price ym. 2019a;b	Timeline Follow Back (TLFB)		TLFB, toxicology screen, electronic health records data
Rezapour ym. 2019	Urine tests		
Schäfer ym. 2019	Self-report	Addiction Severity Index -Lite	
Silva ym. 2020	Substance Use Calendar	Changes in DSM-IV criteria, Addiction Severity Index	
Stephens ym. 2020	Timeline Follow Back (TLFB), urine specimens		
Tetrault ym. 2020	Timeline Follow Back (TLFB), urine toxicology screens and breathalyzers		
JÄRJESTELMÄLLISET KATSAUKSET			
AshaRani ym. 2020	X	X	X
Hides ym. 2019	X	X	
Ii ym. 2019	X	X	
Ray ym. 2020	X		
Sheridan Rains ym. 2020	X		
Steele ym. 2020	X		
Stuart ym. 2020	X	X	

Muut hoitosuositukset

Kotimaisten Käypä hoito- suositusten, englantilaisten NICE- suositusten, skotlantilaisten SIGN- suositusten, ruotsalaisten hoitosuositusten, australialaisten hoitosuositusten tai G-I-N Guideline Libraryn muiden ulkomaisten hoitosuositusten tarkastelussa ei löytynyt aihetta käsitteleviä, vuonna 2019 tai sen jälkeen julkaistuja uusia hoitosuosituksia tai hoitosuositusten päivityksiä.

American Society of Addiction Medicinen (ASAM) julkaisemien hoitosuositusten tarkastelussa löytyi vuonna 2020 julkaistu päivitys hoitosuositukseen “ASAM National Practice Guideline for the Treatment of Opioid Use Disorder” (Grotty ym., 2020).

Kirjallisuushaun yhteydessä löytyi yksi hoitosuositusta käsittelevä artikkeli, joka käsitteli ikääntyvien opioidiriippuvuuden hoitoa vuonna 2020 julkaistussa hoitosuosituksessa ”Canadian Guidelines on Opioid Use Disorder Among Older Adults” (Rieb ym., 2020).

ASAM National Practice Guideline for the Treatment of Opioid Use Disorder

ASAMin julkaiseman päivityksen aikaisempi versio suosituksesta on julkaistu vuonna 2015 (Kampman ym., 2015). Nyt julkaistun päivityksen kirjallisuushaut kohdentuvat ajanjaksoon tammikuu 2014–syyskuu 2018 (Grotty ym., 2020). Päivitetyn suosituksen keskeiset sisällöt psykososiaalista hoitoa koskien ovat:

Osa 2: Hoitovaihtoehdot

- Potilaiden psykososiaaliset tarpeet tulisi arvioida, ja potilaille tulisi tarjota psykososiaalista hoitoa heidän yksilöllisten tarpeidensa mukaisesti. Potilaan päätös kieltäytyä psykososiaalisesta hoidosta tai käytettävissä olevan psykososiaalisen hoidon puuttuminen ei kuitenkaan saisi estää tai viivästyttää lääkehoitoa. Motivoivaa haastattelua tai motivaatiota vahvistavaa hoitomallia voidaan käyttää kannustamaan opioidiriippuvuutta sairastavia henkilöitä osallistumaan sellaiseen psykososiaaliseen hoitoon, jossa otetaan huomioon henkilön yksilölliset tarpeet.

Osa 3: Vieroitusoireiden hoito

- Jatkuva ylläpitolääkitys yhdistettynä potilaan tarpeisiin sopivaan psykososiaaliseen hoitoon on opioidiriippuvuuden hoidon standardi.

Osat 4–5 Metadoni ja buprenorfiini

- Potilaiden psykososiaaliset tarpeet tulisi arvioida, ja potilaille tulisi tarjota psykososiaalista hoitoa heidän yksilöllisten tarpeidensa mukaisesti yhdessä metadonin tai buprenorfiinin kanssa. Potilaan päätös kieltäytyä psykososiaalisesta hoidosta tai käytettävissä olevan psykososiaalisen hoidon puuttuminen ei kuitenkaan saisi estää tai viivästyttää asianmukaista lääkehoitoa. Motivoivaa haastattelua tai motivaatiota vahvistavaa hoitomallia voidaan käyttää kannustamaan opioidiriippuvuutta sairastavia henkilöitä osallistumaan sellaiseen psykososiaaliseen hoitoon, jossa otetaan huomioon henkilön yksilölliset tarpeet.

Osa 6 Naltreksoni

- Potilaiden psykososiaaliset tarpeet tulisi arvioida, ja potilaille tulisi tarjota psykososiaalista hoitoa heidän yksilöllisten tarpeidensa mukaisesti yhdessä pitkävaikutteisen naltreksonin kanssa. Potilaan päätös kieltäytyä psykososiaalisesta hoidosta tai käytettävissä olevan psykososiaalisen hoidon puuttuminen ei kuitenkaan saisi estää tai viivästyttää asianmukaista lääkehoitoa. Motivoivaa haastattelua tai motivaatiota vahvistavaa hoitomallia voidaan käyttää kannustamaan opioidiriippuvuutta sairastavia henkilöitä osallistumaan sellaiseen psykososiaaliseen hoitoon, jossa otetaan huomioon henkilön yksilölliset tarpeet.

Osa 7: Psykososiaalinen hoito yhdessä lääkehoidon kanssa opioidiriippuvuuden hoidossa

- Potilaiden psykososiaaliset tarpeet tulisi arvioida, ja potilaille tulisi tarjota psykososiaalista hoitoa heidän yksilöllisten tarpeidensa mukaisesti yhdessä minkä tahansa lääkehoidon kanssa opioidiriippuvuuden hoidossa tai relapsien ennaltaehkäisyssä. Potilaan päätös kieltäytyä psykososiaalisesta hoidosta tai käytettävissä olevan psykososiaalisen hoitomuodon puuttuminen ei kuitenkaan saisi estää tai viivästyttää asianmukaista lääkehoitoa. Motivoivaa haastattelua tai motivaatiota vahvistavaa hoitomallia voidaan käyttää kannustamaan opioidiriippuvuutta sairastavia henkilöitä osallistumaan sellaiseen psykososiaaliseen hoitoon, jossa otetaan huomioon henkilön yksilölliset tarpeet.

- Hoidon suunnittelua tulisi tehdä yhteistyössä pätevien psykososiaalisia hoitomuotoja tarjoavien ammattilaisten kanssa optimaalisen psykososiaalisen hoitomuodon ja psykososiaalisen hoidon annostelun määrittämiseksi sekä hoitosuunnitelman uudelleenarvioimiseksi tilanteissa, joissa potilas ei sitoudu suositeltuun psykososiaaliseen hoitoon.

Osa 8: Erityisryhmät: Raskaana olevat naiset

- Ks. osa 7 ensimmäinen kohta.

Osa 9: Erityisryhmät: Kivun hoito

- Kipupotilaita hoidettaessa tulee huomioida lääkkeettömien hoitomenetelmien, kuten psykososiaalisten interventioiden ja fysioterapian käyttö osana tarkoituksenmukaista kivunhoitoa.

Osa 10: Erityisryhmät: Nuoret

- Psykososiaalista hoitoa suositellaan nuorten opioidiriippuvuutta sairastavien hoidossa. Lääkehoidon riski–hyöty -suhde ilman samanaikaisesti toteutuvaa psykososiaalista hoitoa on harkittava huolellisesti ja keskusteltava potilaan ja hänen vanhempansa/huoltajansa kanssa. Potilaan päätös kieltäytyä psykososiaalisesta hoidosta tai käytettävissä olevan psykososiaalisen hoitomuodon puuttuminen ei kuitenkaan saisi estää tai viivästyttää asianmukaista lääkehoitoa. Motivoivaa haastattelua tai motivaatiota vahvistavaa hoitomallia voidaan käyttää kannustamaan opioidiriippuvuutta sairastavia henkilöitä osallistumaan sellaiseen psykososiaaliseen hoitoon, jossa otetaan huomioon henkilön yksilölliset tarpeet.

Osa 11 Erityisryhmät: henkilöt, joilla on samanaikaisesti esiintyviä psykiatrisia häiriöitä

- Psykososiaalista hoitoa suositellaan niiden opioidiriippuvuutta sairastavien hoidossa, joilla on samanaikaisesti esiintyviä psykiatrisia häiriöitä. Potilaan päätös kieltäytyä psykososiaalisesta hoidosta tai käytettävissä olevan psykososiaalisen hoitomuodon puuttuminen ei kuitenkaan saisi estää tai viivästyttää asianmukaista lääkehoitoa. Motivoivaa haastattelua tai motivaatiota vahvistavaa hoitomallia voidaan käyttää kannustamaan opioidiriippuvuutta sairastavia henkilöitä osallistumaan sellaiseen psykososiaaliseen hoitoon, jossa otetaan huomioon henkilön yksilölliset tarpeet.

Osa 12: Erityisryhmät: Rikosoikeusjärjestelmän asiakkaat

- Opioidiriippuvuutta sairastaville henkilöille, jotka ovat rikosoikeusjärjestelmän asiakkaita, ja jotka eivät ole hoidossa, tulee tarjota yksilöllisesti suunniteltua lääkehoitoa ja psykososiaalista hoitoa tarvittaessa.
- Ks. Osa 7 ensimmäinen kohta.

Canadian Guidelines on Opioid Use Disorder Among Older Adults

Kanadassa ikääntyneiden mielenterveystyön koalitio julkaisi hoitosuosituksen ”Canadian Guidelines on Opioid Use Disorder Among Older Adults” vuonna 2020 (Rieb ym., 2020). Suositus keskittyy yli 65-vuotiaiden opioidien haitallista käyttöä tai riippuvuutta sairastavien hoitoon. Suosituksen kirjallisuushaku ajoittuu välille 2008–2018.

Psykososiaalisten hoitojen osalta suosituksen keskeiset sisällöt ovat:

- Psykososiaalisia interventioita tulisi tarjota samanaikaisesti lääkehoidon kanssa henkilön ikään sopivalla tavalla ja tahdilla henkilön yksilölliset tarpeet huomioiden. Psykososiaaliseen hoitoon suostuminen ei pidä kuitenkaan olla pakollinen vaatimus lääkehoidon saamiseksi. GRADE näyttö: kohtalainen; suositus: vahva
- Palkkiohoitoa voidaan tarjota ja käyttää osana opioidiriippuvuuden hoitoa, jos potilas itse hyväksyy hoitomuodon. GRADE näyttö: kohtalainen; suositus: heikko

Pohdinta

Tämän PALKO:n Miepä-jaoston tilaamaan systemaattisen katsauksen tarkoituksena oli päivittää vuonna 2019 julkaistu systemaattinen katsaus ”Intensiivisen hoidon ja kuntoutuksen menetelmät riippuvuuksien hoidossa” rajautuen huume- ja lääkeriippuvuuksien hoitoon, ja arvioida psykososiaalisten menetelmien vaikuttavuutta suhteessa päihteiden käytön vähenemiseen/raittiuteen 1/2019–10/2020 kertyneen tutkimusnäytön osalta. Päivityshaulla koottu tutkimusnäyttö pääosin tukee ja täydentää aiemmin koottua (Komulainen ym., 2019) näyttöä menetelmien vaikuttavuudesta. Päivityshaun ajanjaksolla julkaistut tutkimukset kattoivat kuitenkin vain osan alkuperäisessä katsauksessa (Komulainen ym., 2019) tarkastelluista interventioista. Taulukossa 3 esitetään yhteenveto vuonna 2019 julkaistussa katsauksessa (Komulainen ym., 2019) ja päivityskatsauksessa kootusta näytöstä ja huomioista. Päivityksessä tarkasteltu näyttö kohdentui pääosin huume- ja lääkeriippuvaisiin aikuisiin. Nuoria (12–21 -vuotiaat) koskeva näyttö liittyi ainoastaan motivoivaan haastatteluun sekä perheterapian ja masennuksen hoidon yhdistämiseen perättäisenä toteutustapana.

Päivityskatsaus vahvisti erityisesti jo aiemmin (Komulainen ym., 2019) riittäväksi arvioitua näyttöä kognitiivisen käyttäytymisterapian ja palkkiohoidon vaikuttavuudesta. On syytä huomioida, että päivityksessä kertynyt näyttö kognitiivisen käyttäytymisterapian vaikuttavuudesta kohdentui kuitenkin menetelmän vertaamiseen tavanomaiseen hoitoon ja toteutettaessa sitä lääkehoidon rinnalla. Päivityskatsauksen osalta kognitiivisen käyttäytymisterapian ei voitu osoittaa olevan muita psykososiaalisia menetelmiä vaikuttavampi päihderiippuvuuksien hoidossa.

Vastaavasti palkkiohoidon osalta päivityshaussa kertynyt näyttö tuki menetelmän vaikuttavuutta verrattaessa sitä tavanomaiseen hoitoon (tai muuhun palkitsemismuotoon). Päivityksen ajanjaksolla kertynyt näyttö ei tue sitä, että palkkiohoito olisi psykoterapiaa vaikuttavampi päihderiippuvaisten hoidossa. Lisäksi päivityksessä kertyneen näytön perusteella palkkiohoidosta saatava lisähyöty muun psykososiaalisen intervention lisänä tai vastaavasti psykososiaalisen intervention palkkiohoidon lisänä on kyseenalainen. Tulee kuitenkin kiinnittää huomiota, että tässä päivityskatsauksessa tutkimuksia tarkasteltiin rajatulta ajanjaksolta (1/2019–10/2020) ja johtopäätöksiä tehtäessä kertynyt näyttö tulee huomioida kokonaisuutena. Komulainen kollegoineen (2019) toi esille, että aiemmin kertyneen näytön perusteella (De Crescenzo ym., 2018) kokaiini- ja amfetamiiniriippuvaisten hoidossa palkkiohoito yhdistettynä yhteisövahvistusohjelmaan näyttäytyi vaikuttavimpana psykososiaalisena hoitomuotona.

Päivityskatsauksessa uusina osa-alueina näyttöä kertyi yhdistelmähoitojen, psykososiaalisten interventioiden yksilöinnin ja kognitiivisen kuntoutuksen vaikuttavuudesta. Yhdistelmähoitojen, jotka sisältävät useita psykososiaalisia menetelmiä, vaikuttavuudesta tavanomaiseen hoitoon verrattuna todettiin olevan vahvaa näyttöä aikuisten päihderiippuvaisten hoidossa tarkasteltaessa sitä kokonaisuutena suhteessa päihteiden käytön vähenemiseen/raittiuteen. Kognitiivisen käyttäytymisterapian yksilöintiä oli tutkittu kannabisriippuvaisilla aikuisilla. Heikko näyttö tuki yksilöinnin vaikuttavuutta ennalta määriteltyyn toteutustapaan verrattuna. Näyttö kognitiivisen kuntoutuksen vaikuttavuudesta oli myös heikkoa aikuisilla päihderiippuvaisilla. Näyttö pohjautui yhteen Iranissa toteutettuun RCT-tutkimukseen (Rezapour ym., 2019) ja edellyttää siten lisätutkimusta ennen vahvempien johtopäätösten tekemistä.

Psykososiaalisia menetelmiä huume- ja lääkeriippuvuuksien hoidossa tarkasteltiin PALKO:n Miepä-jaoston tilauksen mukaisesti ensisijaisesti suhteessa päihteiden käytön vähenemiseen ja raittiuteen (ml. relapsi), ja siten myös johtopäätökset menetelmien vaikuttavuudesta tehtiin tästä näkökulmasta. Mukaanottokriteerit täyttäneistä tutkimuksista, jotka tarkastelivat edellä mainittuja tulosmuuttujia, raportoitiin kuitenkin myös muita tulosmuuttujia koskevat tulokset. Tämän päivityskatsauksen johtopäätökset menetelmien vaikuttavuudesta on esitetty päihteiden käytön vähenemisen/raittiuden tukemisen näkökulmasta kokonaisuutena pääosin yksittäisiä tulosmuuttujia erottelematta. Tällä

esitystavalla tarkoituksena on tukea menetelmien tuloksellisuuden arviointia huume- ja lääkeriippuvuuksien hoidossa. Esitystapaan päädyttiin asiantuntijaryhmän konsultoinnin jälkeen.

Tässä päivityskatsauksessa tarkastelluissa tutkimuksissa vain neljässä (Marsden ym., 2019, Moore ym., 2019, Schäfer ym., 2019, Price ym., 2019a;b) oli systemaattisesti seurattu interventioihin liittyviä haittatapahtumia. Näissä tutkimuksissa ei tullut esille, että tietyn psykososiaalisen menetelmän käyttöön liittyisi erityisiä riskejä. Yhdessä tutkimuksessa (Schäfer ym., 2019), jossa tutkittavilla oli päihderiippuvuuden lisäksi traumaperäinen stressihäiriö, havaittiin yleisesti tutkimukseen osallistumisen olevan mahdollisesti tai todennäköisesti yhteydessä neljään haittatapahtumaan. Nämä haittatapahtuvat selittynevät tutkimuksen kohderyhmään liittyvillä tekijöillä eivätkä kerro varsinaisesti tutkittujen interventioiden turvallisuudesta.

Päivityskatsaus rajattiin tarkastelemaan psykososiaalisia menetelmiä huume- ja lääkeriippuvuuksien hoidossa. Vain osa tarkastelluista tutkimuksista oli sellaisia, joissa tutkittavilla raportoitiin olevan vain kiinnostuksen kohteena olevien huumeiden tai lääkeaineiden riippuvuutta, eikä muiden päihteiden, kuten alkoholin, riippuvuutta tai muuta ongelmakäyttöä. Tämä sekakäyttöä koskeva havainto on linjassa myös viimeaikaisten Suomen tilastojen (THL, 2020) kanssa. Tutkimuksissa oli myös osin rajattu väljästi tutkittavien mukaanoton kriteereitä päihdeongelmien osalta. Tässä päivityskatsauksessa mukaanoton rajana pidettiin sitä, että tutkimuksissa yli 50 %:lla tutkittavista tuli olla diagnosoitu huume- ja/tai lääkeriippuvuus. Systemaattisissa katsauksissa, joissa tarkasteltiin psykososiaalisia menetelmiä laajemmin päihdeongelmien hoidossa (esim. mukana myös alkoholiriippuvuutta tarkastelleita alkuperäistutkimuksia), mukaanoton kriteerinä pidettiin sitä, että huume- ja lääkeriippuvuuksia tarkastelleiden alkuperäistutkimusten tulokset tuli olla muista tuloksista eriteltynä. Mukaan voitiin kuitenkin ottaa myös sellaisia systemaattisia katsauksia, joissa osassa alkuperäistutkimuksista tutkittavien päihdeongelma oli tarkemmin määrittelemätön (*substance use disorder, SUD*), mikäli 50 % raja diagnosoitujen huume-/lääkeriippuvuuksien osalta kokonaisotoksessa täyttyi. Päivityskatsaukseen otettiin mukaan yksi meta-analyysi (Ray ym., 2020), jossa osa samassa analyysissa mukana olleista alkuperäistutkimuksista kohdentui huume-/lääkeriippuvuuteen ja osa alkoholiriippuvuuteen, sillä katsauksen tuloksia oli varmennettu jälkikäteen päihteittäin alaryhmittäisillä analyyseilla. Lisäksi mukaan otettiin yksi meta-analyysi (Sheridan Rains ym., 2020), jossa huume- ja lääkeriippuvuuksien lisäksi mukana oli kaksi tutkimusta, joissa tutkittavien riippuvuutta aiheuttava päihde oli tupakka. Tämä meta-analyysi otettiin mukaan päivityskatsaukseen, sillä tupakkariippuvuuteen kohdentuneiden tutkimusten otoskoot ja painoarvo analyyseissa olivat pienet (tupakkatutkimukset yhteensä n = 58 tutkittavaa, kaikki tutkittavat yhteensä N = 1654).

Taulukko 3 Yhteenveto katsausten johtopäätöksistä interventioiden vaikuttavuudesta

Interventio	**Vaikuttavuus** (*Komulainen ym. 2019*)	**Vaikuttavuus huume- ja lääkeriippuvaisilla suhteessa päihteiden käytön vähenemiseen/raittiuteen (ml. relapsi)** *(katsauksen päivitys 2021*)*	**Yhteenveto huomioista** *(Komulainen ym. 2019 ja katsauksen päivitys 2021*)*
Kognitiivinen käyttäytymisterapia (CBT)	Osoitettu huume-, alkoholi- ja peliongelmien osalta useiden potilasryhmien kohdalla.	Kognitiivinen käyttäytymisterapian vaikuttavuus verrattaessa tavanomaiseen hoitoon - Näyttö vaikuttavuudesta kohtalaista aikuisilla päihderiippuvaisilla (B) - Näyttö vaikuttavuudesta (relapse prevention training) heikkoa aikuisilla päihderiippuvaisilla, joilla psykiatrinen komorbiditeetti (C) Kognitiivisen käyttäytymisterapian vaikuttavuus verrattaessa toiseen psykososiaaliseen interventioon - Ei näyttöä vaikuttavuudesta aikuisilla päihderiippuvaisilla (B) - Näyttö vaikuttavuudesta hyvin heikkoa aikuisilla päihderiippuvaisilla, joilla psykiatrinen komorbiditeetti (D)	Komulainen ym. 2019: Kokonaisuutena näyttö vaikuttavuudesta on riittävä. Päivitys 2021*: Katsauksen päivitys tukee aiempaa johtopäätöstä. Näyttö päivityshaussa kuitenkin ristiriitaista siitä, onko kognitiivinen käyttäytymisterapia vaikuttavampaa kuin muut psykososiaaliset interventiot.
Motivaatiota vahvistava hoitomalli (MET)	Osoitettu huume-, alkoholi- ja peliongelmien osalta useiden potilasryhmien kohdalla.	-	Komulainen ym. 2019: Kokonaisuutena näyttö vaikuttavuudesta on riittävä.
Motivoiva haastattelu (MI)	Osoitettu huume- ja alkoholiongelmien osalta joidenkin potilasryhmien osalta. Merkitys lisähoitona kyseenalainen.	Motivoivan haastattelun vaikuttavuus verrattaessa tavanomaiseen hoitoon - Näyttö vaikuttavuudesta (relapsi) heikkoa aikuisilla päihderiippuvaisilla (C) - Näyttö vaikuttavuudesta hyvin heikkoa nuorilla, joilla kannabisriippuvuutta tai sen muuta ongelmakäyttöä (D)	Komulainen ym. 2019: Näyttö erityisesti lievissä häiriöissä. Päivitys 2021*: Katsauksen päivitys tukee nuorten osalta aiempaa johtopäätöstä. Heikkoa näyttöä myös päihderiippuvaisilla aikuisilla relapsin ehkäisyssä. Intensiivisenä toteutetusta motivoivasta haastattelusta ei näyttäisi olevan lisähyötyä tavanomaisena toteutettuun verrattuna.

Motivoiva haastattelu (MI) (*jatkuu ed. sivulta*)		Intensiivisenä toteutetun motivoivan haastattelun vaikuttavuus verrattaessa tavanomaiseen motivoivaan haastatteluun - Ei näyttöä vaikuttavuudesta aikuisilla metamfetamiiniriippuvaisilla (B)	
Lyhytinterventiot (BI)	Osoitettu huume- ja alkoholiongelmien osalta joidenkin potilasryhmien osalta. Peliongelmissa näyttö vähäistä.	-	Komulainen ym. 2019: Näyttö erityisesti lievissä häiriöissä.
Rationaalis-emotionaalinen terapia (RET, REBT)	-	-	-
Mindfulness-pohjaiset terapiat	Vaikuttavuus mahdollista huume-, alkoholi- ja peliongelmien osalta joidenkin potilasryhmien kohdalla.	Mindfulness-pohjaisten interventioiden vaikuttavuus verrattaessa tavanomaiseen hoitoon - Näyttö vaikuttavuudesta heikkoa päihderiippuvaisilla naisilla (C) Mindfulness-pohjaisten interventioiden vaikuttavuus verrattaessa terveysohjaukseen - Ei näyttöä vaikuttavuudesta päihderiippuvaisilla naisilla (C)	Komulainen ym. 2019: Näyttö pääosin heikkoa tai hyvin heikkoa. Päivitys 2021*: Katsauksen päivitys tukee aiempaa johtopäätöstä.
12 askeleen ohjelma	Osoitettu alkoholiongelmien osalta.	-	Komulainen ym. 2019: Näyttö erityisesti raitistumisesta.
Ratkaisukeskeinen terapia	-	-	-
Yhteisövahvistusohjelma ja terapeuttinen yhteisö	Osoitettu huume- ja alkoholiongelmien osalta.	-	Komulainen ym. 2019: Näyttö vaikuttavuudesta on pääosin riittävää.
Psykodynaaminen psykoterapia	-	-	-
Interpersoonallinen psykoterapia	Ei vaikuttavuutta psykoedukaatioon verrattuna psyykkisesti sairaiden päihteitä käyttävien rikoksentekijöiden kohdalla.	-	Komulainen ym. 2019: -

Pari-, perhe- ja verkostoterapiat	Osoitettu alkoholiongelmien ja päihteitä käyttävien rötöksiä tekevien nuorten kohdalla.	Peräkkäisen toteutustavan vaikuttavuus verrattaessa yhdistelmänä toteutettuun interventioon (Functional Family Therapy + Coping with Depression) - Näyttö vaikuttavuudesta heikkoa nuorilla, joilla kannabisriippuvuutta tai sen muuta ongelmakäyttöä ja masennus (C)	Komulainen ym. 2019: - Päivitys 2021*: Yhdistettäessä nuorilla perheterapiaa masennuksen hoitoon heikko näyttö tukee peräkkäistä toteutustapaa.
Palkkiohoito	Osoitettu huume- ja alkoholiongelmien osalta useiden potilasryhmien kohdalla.	Palkkiohoidon vaikuttavuus verrattaessa tavanomaiseen hoitoon - Näyttö vaikuttavuudesta kohtalaista aikuisilla, joilla stimulanttiriippuvuus (B) Palkkiohoidon vaikuttavuus verrattaessa pelkkään psykoterapiaan - Ei näyttöä vaikuttavuudesta aikuisilla päihderiippuvaisilla (B) Palkkiohoidon vaikuttavuus verrattaessa muuhun palkitsemismuotoon - Näyttö vaikuttavuudesta kohtalaista aikuisilla, joilla stimulanttiriippuvuus ja psykiatrinen komorbiditeetti (B) Palkkiohoidon vaikuttavuus toisen psykososiaalisen intervention lisänä verrattaessa pelkkään psykososiaaliseen interventioon - Ei näyttöä vaikuttavuudesta (probability of abstinence, PDA, PPA) aikuisilla päihderiippuvaisilla (B) - Näyttö vaikuttavuudesta (LDA) heikkoa aikuisilla kannabisriippuvaisilla (C) Psykososiaalisen intervention vaikuttavuus palkkiohoidon lisänä verrattaessa pelkkään palkkiohoitoon - Ei näyttöä vaikuttavuudesta aikuisilla päihderiippuvaisilla (B)	Komulainen ym. 2019: Kokonaisuutena näyttö vaikuttavuudesta on riittävä. Päivitys 2021*: Katsauksen päivitys tukee aiempaa johtopäätöstä (verrattaessa tavanomaiseen hoitoon tai muuhun palkitsemismuotoon). Ei näyttöä verrattaessa pelkkää palkkiohoitoa pelkkään psykoterapiaan. Palkkiohoidon lisähyöty toisen psykososiaalisen intervention lisänä ja toisen psykososiaalisen intervention lisähyöty palkkiohoidon lisänä kyseenalainen.

Verkkopohjaiset ja digitaaliset ohjelmat	Osoitettu huume- ja alkoholiongelmien osalta joidenkin potilasryhmien kohdalla.	Verkkopohjaisen kognitiivisen käyttäytymisterapian vaikuttavuus verrattaessa tavanomaiseen hoitoon - Näyttö vaikuttavuudesta hyvin heikkoa aikuisilla päihderiippuvaisilla (D)	Komulainen ym. 2019: Näytön aste vaihteleva. Päivitys 2021*: Näyttö vaikuttavuudesta hyvin heikkoa.
Psykososiaalisen intervention yksilöinti	-	Kognitiivisen käyttäytymisterapian yksilöinnin vaikuttavuus verrattaessa ennalta määrättyyn toteutustapaan - Näyttö vaikuttavuudesta heikkoa aikuisilla kannabisriippuvaisilla (C)	Päivitys 2021*: Näyttö yksilöinnin vaikuttavuudesta heikkoa.
Kognitiivinen kuntoutus	-	Kognitiivisen kuntoutuksen vaikuttavuus verrattaessa toiseen psykososiaaliseen interventioon - Näyttö vaikuttavuudesta heikkoa aikuisilla päihderiippuvaisilla (C)	Päivitys 2021*: Näyttö vaikuttavuudesta heikkoa.
Yhdistelmähoidot (useita psykososiaalisia menetelmiä sisältävät)	-	Psykososiaalisen yhdistelmähoidon vaikuttavuus verrattaessa tavanomaiseen hoitoon - Näyttö vaikuttavuudesta vahvaa aikuisilla päihderiippuvaisilla (A) Psykososiaalisen yhdistelmähoidon vaikuttavuus verrattaessa terveysohjaukseen - Ei näyttöä vaikuttavuudesta aikuisilla heroiiniriippuvaisilla (D)	Päivitys 2021*: Näyttö vaikuttavuudesta vahvaa tavanomaiseen hoitoon verrattuna. Terveysohjaukseen verrattuna heroiiniriippuvaisilla näyttö ristiriitaista, mutta puutteellista.

*) Tutkimuskirjallisuus 1/2019–10/2020 väliseltä ajalta

Katsauksen luotettavuus

Katsaus toteutettiin systemaattisen katsauksen periaatteita noudattaen. Katsauksen protokollaa ei kuitenkaan julkaistu suunnitelmavaiheessa tilauskatsauksen luonteen ja tiukan aikataulun vuoksi. Katsauksen luotettavuuden varmistamiseksi kirjallisuushaut suunniteltiin yhdessä informaatikon kanssa, joka myös toteutti varsinaiset haut. Tiedonhaun kattavuus pyrittiin myös varmistamaan laajentamalla vuonna 2019 julkaistun katsauksen tiedonhakulausekkeita ja käytettyjä tietokantoja. Päivitetyt hakutermit ja hakulausekkeet tarkastutettiin asiantuntijaryhmän jäsenillä ennen kirjallisuushaun toteutusta.

Aineiston valinnan luotettavuuden lisäämiseksi jokaisen aineiston valinnan vaiheen ja harhan riskin arvioinnin suoritti kaksi tutkijaa itsenäisesti ja tarvittaessa konsultoitiin kolmatta tutkijaa. Aineiston läpikäynnissä hyödynnettiin Covidence-ohjelmistoa. Kirjallisuushaulla löydettyjen systemaattisten katsausten sisältämien alkuperäistutkimusten tietoja (mm. riippuvuusdiagnoosin olemassaolo, päihde) tarkistettiin tarpeen mukaan alkuperäisjulkaisusta katsausten mukaanoton tai poisjätön varmistamiseksi. Systemaattisten katsausten osalta myös tarkistettiin, ettei niiden kattamat alkuperäistutkimukset olleet jo mukana Komulaisen ym. (2019) katsauksessa RCT-tutkimuksina päällekkäisen

tarkastelun minimoimiseksi. Aineiston haun ja valinnan sekä katsauksen laadinnan eri vaiheissa konsultoitiin tarpeenmukaisesti asiantuntijaryhmää. Tutkimustaulukkoon tiedot koottiin alkuperäistutkimuksista englannin kielellä käännösvirheiden poissulkemiseksi. Raportin koostamisessa ja tarkistuksessa konsultoitiin myös asiantuntijaryhmän jäseniä.

Tässä päivityskatsauksessa tarkastelluissa tutkimuksissa seuranta-ajat vaihtelivat, ja pääsääntöisesti olivat lyhyitä. Pidemmän seuranta-ajan tutkimuksissa lisäksi havaittiin useissa merkittävää katoa tutkittavissa. Kertyneen näytön pohjalta tehdyt johtopäätökset painottuvat siten interventioiden lyhytaikaiseen vaikuttavuuteen, joka on syytä huomioida katsauksen tuloksia tulkittaessa. Lisäksi useimmiten eri psykososiaalisten menetelmien vaikuttavuuden osoittaminen liittyi vertailuun tavanomaisen hoidon kanssa. Tavanomainen hoito vaihtelee maittain ja tavanomaisen hoidon kuvaus oli osassa tutkimuksissa niukka. Siten tulosten tulkintaa tulee tehdä huomioiden maa ja konteksti, jossa menetelmää koskevat tutkimukset ovat toteutettu.

Harhan riskiä arvioitaessa RCT-tutkimuksissa merkittävin harhan riski kohdentui sokkouttamisen puutteisiin, joka osin on selitettävissä interventioiden luonteella, sillä niiden toteutustavan sokkouttaminen on haasteellista. Näytönasteen arvioinnissa käytettiin kansainvälisesti hyväksyttyä GRADE-kriteeristöä. Katsauksen johtopäätöksissä näytön astetta laski mm. tutkimusten harhan riski, tutkimusten tulosten epäjohdonmukaisuus ja muut puutteet tutkimusnäytössä (mm. pieni otos). On syytä huomioida, että näytön heikkous ei siten suoraan viittaa menetelmän vaikuttavuuden puutteeseen, vaan voi viitata toteutettujen tutkimusten puutteisiin.

Johtopäätökset

Useiden eri psykososiaalisten menetelmien vaikuttavuutta on tutkittu huume- ja lääkeriippuvuuksien hoidossa. Tutkimusnäyttö tukee useiden eri psykososiaalisten menetelmien käyttöä ja niillä saavutettavan hoidon tuloksellisuutta suhteessa päihteiden käytön vähenemiseen ja/tai raittiuteen kokonaisuutena, mutta näyttö on vahvuudeltaan pääosin heikkoa–kohtalaista. Vahvinta näyttöä tässä päivityskatsauksessa tarkastelluista menetelmistä on kertynyt yhdistelmähoidosta, jossa yhdistetään useita psykososiaalisia menetelmiä, sekä kognitiivisesta käyttäytymisterapiasta ja palkkiohoidosta huume- ja lääkeriippuvuuksien hoidossa. Menetelmien vaikuttavuus on pääosin osoitettu tavanomaiseen hoitoon verrattuna eikä eri menetelmien paremmuutta suhteessa toisiin voida esittää tässä päivityksessä kootun näytön perusteella. Menetelmiä koskevia johtopäätöksiä tehtäessä tulee lisäksi huomioida myös aiemmin kertynyt näyttö ja tarkastella näyttöä kokonaisuutena myös niiden psykososiaalisten menetelmien osalta, joita koskevaa tutkimusnäyttöä ei tämän päivityksen ajanjaksolta ollut kertynyt.

Kiitokset

Kiitämme asiantuntijatyöryhmän jäseniä sekä PALKO:n sihteeristöä ja Miepä-jaostoa sen työn aikana antamista kommenteista.

Sidonnaisuudet

Työryhmän jäsenillä ei ole sidonnaisuuksia, jotka olisivat voineet vaikuttaa päivitystyön toteuttamiseen tai sen luotettavuuteen.

Lähteet

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Liitteet

Liite 1 Tutkimuskirjallisuuden mukaanotto- ja poisjättökriteerit

PICO	Määritelmä	Mukaanottokriteerit	Poisjättökriteerit
P= Terveysongelma/ potilasryhmä	Henkilöt, ilman ikärajausta, joilla on diagnosoitu(* huume- tai lääkeaineriippuvuus. *) Nuorten kohdalla riittää maininta huumeiden tai lääkeaineiden ongelmakäytöstä, ei tarvitse olla diagnoosia*	Vähintään puolella tutkimuksessa mukana olevilla henkilöillä on diagnosoitu(* jokin seuraavista huume- tai lääkeaineriippuvuuksista: • opioidit (F11.2), • kannabis (F12.2), • rauhoittavat tai unilääkkeet (F13.2), • kokaiini (F14.2), • muut piristeet (F15.2), • hallusinogeenit (F16.2), • liuotinaineet (F18.2), • useat lääkeaineet (F19.2) Tutkittavilla voi olla huume- tai lääkeaineiden aiheuttaman riippuvuuden lisäksi myös muu diagnoosi (esim. mielenterveydenhäiriö) *PALKO:n Miepä-jaoston kanssa sovitun mukaisesti ne systemaattiset katsaukset, joissa on mukana myös esim. alkoholiriippuvuutta tarkastelevia tutkimuksia, otetaan mukaan, mikäli katsauksen tuloksissa huume- tai lääkeriippuvaisia koskevat tulokset ovat muista eroteltuna.* *Lisäksi systemaattiset katsaukset, joissa osassa mukaan otetuista tutkimuksista tutkittavien päihdeongelma on tarkemmin määrittelemätön (SUD), eikä tuloksia ole näiden osalta eroteltu muista, otetaan mukaan, mikäli kokonaisaineistossa yli puolella tutkittavista on diagnosoitu huume- tai lääkeaineiden riippuvuus.*	Tupakka-, alkoholi-, peliriippuvuus Päihteiden käytön ennaltaehkäisy, ns. päihteiden viihdekäyttö tai ongelmakäyttö ilman diagnosoitua riippuvuutta (*HUOM: pois lukien nuoret, joiden kohdalla riittää maininta ongelmakäytöstä ilman diagnoosia*)
I= Interventio	Tutkittava interventio on psykososiaalinen interventio, jota käytetään päihdehoitoon tai päihdekuntoutukseen. Mukaan otetaan myös eri interventioiden yhdistelmät.	Tutkittava interventio on jokin seuraavista tai seuraavia menetelmiä on käytetty osana tutkittavaa interventiota: • kognitiivinen käyttäytymisterapia, • muut kognitiivisen psykoterapian muodot (näiden osana erikseen motivaatiota vahvistava hoitomalli (MET) ja retkahduksen ehkäisy), • 12 askeleen ohjelma, • ratkaisukeskeinen terapia, • yhteisövahvistusohjelma (CRA, CRAFT-T), • psykoanalyyttinen (psykodynaaminen) psykoterapia, • interpersonaalinen psykoterapia, • pari-, perhe- ja verkostoterapiat • palkkiohoito, • yhteisöhoito, • mindfulness-pohjaiset interventiot,	Muu psykososiaalinen interventio kuin mukaanottokriteereissä listattu (esim. taideterapia, liikuntaan pohjautuva interventio) Muu kuin psykososiaalinen interventio, esimerkiksi lääkehoito ilman psykososiaalista komponenttia

		• verkkopohjaiset ohjelmat/terapiat (ml. nettiterapia, virtuaalitodellisuus) Lisäksi otetaan erikseen huomioon seuraaville ryhmille kohdennetut interventiot: • raskaana olevien interventiot, • nuorten interventiot, • naisten interventiot, • iäkkäiden interventiot, • väkivaltaisten interventiot, • asunnottomien interventiot, • interventiot käyttäjille, joilla on kognitiivisia häiriöitä • interventiot henkilöille, joilla on huume- tai lääkeaineiden ongelmakäytön tai riippuvuuden kanssa samanaikaisia mielenterveydenhäiriöitä (esim. epävakaa persoonallisuus, antisosiaalinen persoonallisuushäiriö tai psykoosisairaus) jne.	
C= Kontrolli	Mikä tahansa muu interventio (psykososiaalinen tai farmakologinen)	Kontrolli-interventio voi olla jokin seuraavista: • yleinen supportio tai hoitosuhde ilman spesifiä tavoitteellista interventiota (=tavanomainen hoito), • lääkehoito, • jonohoito, • lumeinterventio, • toinen psykososiaalinen interventio, • kontrolliryhmä ilman interventiota	Ei kontrolliryhmää
O= Lopputulosmuuttuja	Tarkasteltava primaarinen lopputulosmuuttuja on päihteiden käytön väheneminen tai raittius	Tutkimuksessa tulee olla arvioitu intervention vaikuttavuutta suhteessa päihdekäytön vähenemiseen tai raittiuteen eri tavoin mitattuna (mukaan lukien relapsi) Näistä tutkimuksista tarkastellaan myös mm. seuraavia tuloksia: • terveyteen liittyvä elämänlaatu (HRQOL), • toimintakyky, • mahdolliset muut terveysmittarit (=terveydentila), • hoidossa pysyminen/ hoitoon sitoutuminen, • vaikutus muiden terveyspalvelujen käyttöön (esim. päivystyskäynnit)	Tutkimuksen primaarisena lopputulosmuuttujana on muu kuin päihteiden käytön väheneminen tai raittius
Konteksti		Avohoito, laitoshoito	
Tutkimustyyppi	Tarkasteltava tutkimus on RCT-tutkimus tai niiden systemaattinen katsaus tai meta-analyysi	Mukaan otetaan ensisijaisesti systemaattiset katsaukset ja meta-analyysit. RCT- tutkimukset otetaan mukaan, mikäli ne on julkaistu aihetta koskevan järjestelmällisen katsauksen laadinnan jälkeen. Jos samasta aiheesta on useita korkealaatuisia systemaattisia	Kvasikokeelliset tutkimukset, muut määrälliset asetelmat, laadulliset tutkimukset Systemaattiset katsaukset, joissa muitakin kuin RCT-tutkimuksia, ja joissa RCT-tutkimuksia koskevia tuloksia ei ole eritelty.

		katsauksia, analyysiin otetaan mukaan niistä tuorein. RCT-tutkimuksissa tutkittavien määrä on lisäksi oltava vähintään 50, ellei ole erityisiä perusteita ottaa tutkimus mukaan katsaukseen (*PALKO:n Miepä-jaoston kanssa sovitun mukaisesti kaikki tutkimukset, joissa n < 50, jätettiin tämän katsauksen ulkopuolelle).*	
Seuranta-aika	Tarkasteltavassa tutkimuksessa on ennen-jälkeen mittauksia	Tutkimukset, jotka sisältävät mittauksia myös intervention jälkeen (poikkeus: jatkuvaluonteiset interventiot) *PALKO:n Miepä-jaoston kanssa sovitun mukaisesti tähän katsaukseen otettiin mukaan kaikki tutkimukset, joissa oli toteutettu intervention jälkeisiä mittauksia, seuranta-ajan pituudesta riippumatta*	Ei seurantamittauksia

Liite 2 Hakustrategia

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#	Query	Last Run Via	Results
S61	S58 AND S59	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	707
S60	S58 AND S59	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	5,206
S59	TI (random* or rct or meta-analys* or systematic review*) OR AB (random* or rct or meta-analys* or systematic review*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	447,966
S58	S33 AND S57	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	38,520
S57	S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	239,829
S56	Street Drug* OR designer* drug* OR nps OR novel psychoactive drug* OR new psychoactive drug* OR poly* drug* use*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	11,288
S55	(MH "Substance Withdrawal Syndrome+")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	5,611
S54	(opiate* or opioid* OR methadone* OR buprenorphine*) N3 (substitut* OR agonist*) N3 (treatment* or therap*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2,782
S53	drug overdose*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	5,206
S52	(MH "Substance Abuse, Intravenous")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	4,811
S51	(MH "Overdose")	Interface - EBSCOhost Research Databases	7,298

		Search Screen - Advanced Search Database - CINAHL	
S50	(MH "Substance Use Disorders+")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	163,393
S49	(addiction disorder* or "substance use")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	72,363
S48	(substance N3 (abus* or misus* or withdraw* or addict* or dependen*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	68,604
S47	(narcotic addiction* or street drug* or synthetic drug*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	12,700
S46	(solvent* N3 (dependen* or addict* or abus* or misus*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	67
S45	((inhalant* OR Glue OR volatile*) N3 (dependen* or addict* or abus* or misus*)) OR sniffing*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,249
S44	(MH "Inhalant Abuse")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	372
S43	((hallucinogen* N3 (dependen* or addict* or abus* or misus*)) or street drug* OR LSD OR microdosing OR MDMA OR ecstacy OR GHB OR Gamma Hydroxybutyrate OR Gamma Butyrolactone OR GBL OR psychedelic*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	8,122
S42	Amphetamine-Related* Disorder*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2
S41	((stimulant* or amphetamine or metamphetamine or d-amphetamine or dextroamphetamine or psychostimulant* OR metylphenidate* OR lisdexamfetamine*) N3 (dependen* or addict* or abus* or misus*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	3,673
S40	(cocaine N3 (dependen* or addict* or abus* or misus*))	Interface - EBSCOhost Research Databases Search Screen - Advanced	1,975

		Search Database - CINAHL	
S39	Cocaine-Related* Disorder*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	9
S38	((drug or benzodiazepin* or analgesic* or codeine or dextropropoxyphene or buprenorphine or nalbuphine or tramadol or morphine or hydromorphone or oxycodone or pethidine or meperidine or fentanyl or methadone or diazepam or chlordiazepoxide or oxazepam or chlorazepam or nitrazepam or triazolam or temazepam or midazolam or zopiclone or zolpidem or zaleplon or clonazepam or gabapentin or pregabalin or bupropion or modafinil or lisdexamfetamine OR alprazolam) N1 (dependen* or addict* or abus* or misus*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	85,704
S37	Marijuana* Abus*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	269
S36	((cannabinoid or cannabis or marijuana or marihuana or hemp or hash or hashish OR THC OR ganjia OR weed OR synthetic cannabinoid or pot) N3 (dependen* or addict* or abus* or misus*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	7,991
S35	((opioid* or opiate* or morphine or heroin or buprenorphine or naltrexone or methadone) N3 (dependen* or addict* or abus* or misus*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	19,864
S34	Opioid-Related* Disorder*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	36
S33	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	487,827
S32	brief intervention*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	5,829
S31	Reinforce* N1 Social*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	264
S30	(MH "Reinforcement (Psychology)")	Interface - EBSCOhost Research Databases Search Screen - Advanced	3,775

		Search Database - CINAHL	
S29	(MH "Psychotherapy, Group+")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	23,283
S28	(MH "Psychotherapy, Brief")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,282
S27	(MH "Therapy, Computer Assisted+")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	18,545
S26	(psychological N3 (intervention* or treatment* or therap*)) OR rehabilitat*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	193,303
S25	psychosocial intervention* or psychosocial treatment* OR supportive therap*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	11,076
S24	(((internet or web* or online or on-line or computer*) N3 (therap* or psychotherap*)) or (e-therap* or online counsel* OR virtual realit* OR VR))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	123,162
S23	(community treatment* or therapeutic communit* OR ACT OR assertive community treatment*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	93,520
S22	contingency management*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	917
S21	social N3 network* N3 therap*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	64
S20	(family therap* or family psychotherap*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	8,864
S19	Marital Therap*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	258

S18	(MH "Family Therapy")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	5,501
S17	(MH "Couples Counseling")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2,491
S16	couple* therap* or marital therap* or marriage therap* or conjoint therap*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2,083
S15	(interpersonal N3 (therap* or psychotherap*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,010
S14	psychoanalytic therap* or psychoanalytic psychotherap*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	436
S13	(MH "Psychotherapy, Psychodynamic")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	471
S12	((psychoanalytic or psychodynamic) N3 (psychotherap* or therap*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,552
S11	(community reinforcement approach* or "Community Reinforcement and Family Training for Treatment Retention" or CRAFT-T or social reinforcement* or (psychol* N3 reinforcement*))	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	3,985
S10	(solution* N3 focus* N3 therap*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	280
S9	TI (twelve step* or 12 step*)	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	169
S8	twelve-step program* or 12-step program* OR narcotic* anonymous* OR NAA	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,184
S7	Psychotherapy N1 Rational-Emotive*	Interface - EBSCOhost Research Databases	2

		Search Screen - Advanced Search Database - CINAHL	
S6	cognitive therap* or cognitive analytic therap* or motivational enhancement therap* or rational emotive therap* or dialect* behavio* therap* or motivational interview* or mindfulness	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	37,437
S5	(MH "Motivational Interviewing")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	3,477
S4	(MH "Cognitive Therapy+")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	24,242
S3	behavio* N3 modificat*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	4,019
S2	behavio* therap*	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	28,028
S1	(MH "Behavior Therapy+")	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	34,514

PSYCINFO 5.11.2020

1 exp Behavior Therapy/ (20666)
2 behavio* therap*.mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (60358)
3 (behavio* adj3 modificat*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (17436)
4 exp cognitive behavior therapy/ (22078)
5 exp Motivational Interviewing/ (2520)
6 (cognitive therap* or cognitive analytic therap* or motivational enhancement therap* or rational emotive therap* or dialect* behavio* therap* or motivational interview* or mindfulness).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (47168)
7 exp Rational Emotive Behavior Therapy/ or Psychotherapy, Rational-Emotive.mp. (1888)
8 (twelve-step program* or 12-step program* or narcotic* anonymous* or NAA).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (2500)
9 (twelve step* or 12 step*).ti. (535)
10 (solution* adj3 focus* adj3 therap*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (1395)
11 (community reinforcement approach* or "Community Reinforcement and Family Training for Treatment Retention" or CRAFT-T or social reinforcement* or (psychol* adj3 reinforcement*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (3082)
12 ((psychoanalytic or psychodynamic) adj3 (psychotherap* or therap*)).mp. (13760)

13 exp Psychodynamic Psychotherapy/ or Psychotherapy, Psychodynamic.mp. (3726)
14 exp Psychoanalysis/ (57679)
15 (psychoanalytic therap* or psychoanalytic psychotherap*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (13825)
16 (interpersonal adj3 (therap* or psychotherap*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (3922)
17 (couple* therap* or marital therap* or marriage therap* or conjoint therap*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (9323)
18 exp Couples Therapy/ (4539)
19 exp Family Therapy/ (22066)
20 exp Marriage Counseling/ or marital* therap*.mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (6427)
21 (family therap* or family psychotherap*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (29841)
22 (social adj3 network* adj3 therap*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (139)
23 exp Contingency Management/ or contingency management*.mp. (3845)
24 (community treatment* or therapeutic communit* or ACT or assertive community treatment*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (82219)
25 (((internet or web* or online or on-line or computer*) adj3 (therap* or psychotherap*)) or (e-therap* or online counsel* or virtual realit* or VR)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (17527)
26 (psychosocial intervention* or psychosocial treatment* or supportive therap*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (9612)
27 ((psychological adj3 (intervention* or treatment* or therap*)) or rehabilitat*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (95355)
28 exp Computer Assisted Therapy/ or Therapy, Computer-Assisted.mp. (10930)
29 exp Brief Psychotherapy/ or Psychotherapy, Brief.mp. (7227)
30 exp Group Psychotherapy/ or Psychotherapy, Group.mp. (27253)
31 exp Reinforcement/ or Reinforcement, Psychology.mp. (56390)
32 exp Social Reinforcement/ or Reinforcement, Social.mp. (3933)
33 brief intervention*.mp. (3790)
34 or/1-33 (467343)
35 exp "Opioid Use Disorder"/ or Opioid-Related Disorders.mp. (8384)
36 ((opioid* or opiate* or morphine or heroin or buprenorphine or naltrexone or methadone) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (13453)
37 ((cannabinoid or cannabis or marijuana or marihuana or hemp or hash or hashish hashish or THC or ganjia or weed or synthetic cannabinoid or pot) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (2878)
38 exp Marijuana Usage/ or Marijuana Abuse.mp. (5907)
39 ((drug or benzodiazepin* or analgesic* or codeine or dextropropoxyphene or buprenorphine or nalbuphine or tramadol or morphine or hydromorphone or oxycodone or pethidine or meperidine or fentanyl or methadone or diazepam or chlordiazepoxide or oxazepam or chlorazepam or nitrazepam or triazolam or temazepam or midazolam or zopiclone or zolpidem or zaleplon or clonazepam or gabapentin or pregabalin or bupropion or modafinil or lisdexamfetamine or alprazolam) adj (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (81515)
40 exp Cocaine/ or Cocaine-Related Disorder*.mp. (14856)
41 (cocaine adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (6376)
42 ((stimulant* or amphetamine or metamphetamine or d-amphetamine or dextroamphetamine or psychostimulant* or metylphenidate* or lisdexamfetamine*) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (2246)
43 exp Amphetamine/ or Amphetamine-Related Disorder*.mp. (13894)
44 ((hallucinogen* adj3 (dependen* or addict* or abus* or misus*)) or street drug* or LSD or microdosing or MDMA or ecstacy or GHB or Gamma Hydroxybutyrate or Gamma Butyrolactone or GBL or

psychedelic*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (9733)
45 exp Inhalant Abuse/ (627)
46 (((inhalant* or Glue or volatile*) adj3 (dependen* or addict* or abus* or misus*)) or sniffing*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (2156)
47 (solvent* adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (224)
48 (narcotic addiction* or street drug* or synthetic drug*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (4133)
49 (substance adj3 (abus* or misus* or withdraw* or addict* or dependen*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (45881)
50 (addiction disorder* or "substance use").mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (63975)
51 exp Drug Dependency/ or exp Drug Abuse/ or exp "Substance Use Disorder"/ or Substance-Related Disorder*.mp. (146677)
52 exp Drug Overdoses/ (1934)
53 exp Intravenous Drug Usage/ or Substance Abuse, Intravenous.mp. (6242)
54 Drug Overdose*.mp. (2988)
55 ((opiate* or opioid* or methadone* or buprenorphine*) adj3 (substitut* or agonist*) adj3 (treatment* or therap*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (1166)
56 exp Drug Withdrawal/ or Substance Withdrawal Syndrome*.mp. (12038)
57 (Street Drug* or designer* drug* or nps or novel psychoactive drug* or new psychoactive drug* or poly* drug* use*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (6422)
58 or/35-57 (222893)
59 34 and 58 (34546)
60 limit 59 to ("0830systematic review" or 1200 meta analysis) (538)
61 (random* or rct or meta-analys* or systematic review*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (262206)
62 59 and 61 (4957)
63 60 or 62 (5007)
64 limit 63 to yr="2019 -Current" (412)

OVID MEDLINE 5.11.2020

1 exp Behavior Therapy/ (76557)
2 behavio* therap*.mp. (62944)
3 (behavio* adj3 modificat*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (6337)
4 exp Cognitive Behavioral Therapy/ (29194)
5 exp Motivational Interviewing/ (1923)
6 (cognitive therap* or cognitive analytic therap* or motivational enhancement therap* or rational emotive therap* or dialect* behavio* therap* or motivational interview* or mindfulness).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (17294)
7 exp Psychotherapy, Rational-Emotive/ (194)
8 (twelve-step program* or 12-step program* or narcotic* anonymous* or NAA).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (6701)
9 (twelve step* or 12 step*).ti. (329)
10 (solution* adj3 focus* adj3 therap*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (173)

11 (community reinforcement approach* or "Community Reinforcement and Family Training for Treatment Retention" or CRAFT-T or social reinforcement* or (psychol* adj3 reinforcement*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (17715)
12 ((psychoanalytic or psychodynamic) adj3 (psychotherap* or therap*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (17062)
13 exp Psychotherapy, Psychodynamic/ (596)
14 exp Psychoanalytic Therapy/ (15576)
15 (psychoanalytic therap* or psychoanalytic psychotherap*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (15261)
16 (interpersonal adj3 (therap* or psychotherap*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1666)
17 (couple* therap* or marital therap* or marriage therap* or conjoint therap*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (2593)
18 exp Couples Therapy/ (2165)
19 exp Family Therapy/ (8874)
20 exp Marital Therapy/ (1528)
21 (family therap* or family psychotherap*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (10163)
22 (social adj3 network* adj3 therap*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (64)
23 contingency management*.mp. (1095)
24 (community treatment* or therapeutic communit* or ACT or assertive community treatment*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (295555)
25 (((internet or web* or online or on-line or computer* or virtual realit* or VR) adj3 (therap* or psychotherap*)) or (e-therap* or online counsel*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (12510)
26 (psychosocial intervention* or psychosocial treatment* or supportive therap*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (12044)
27 ((psychological adj3 (intervention* or treatment* or therap*)) or rehabilitat*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (345186)
28 exp Therapy, Computer-Assisted/ (65593)
29 exp Psychotherapy, Brief/ (3544)
30 exp Psychotherapy, Group/ (26788)
31 exp Reinforcement, Psychology/ (54811)
32 exp Reinforcement, Social/ (1061)
33 brief intervention*.mp. (4254)
34 or/1-33 (887485)
35 exp Opioid-Related Disorders/ (27231)

36 ((opioid* or opiate* or morphine or heroin or buprenorphine or naltrexone or methadone) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (28767)
37 ((cannabinoid or cannabis or marijuana or marihuana or hemp or hash or hashish or THC or ganjia or weed or synthetic cannabinoid or pot) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (8243)
38 exp Marijuana Abuse/ (6399)
39 ((drug or benzodiazepin* or analgesic* or codeine or dextropropoxyphene or buprenorphine or nalbuphine or tramadol or morphine or hydromorphone or oxycodone or pethidine or meperidine or fentanyl or methadone or diazepam or chlordiazepoxide or oxazepam or chlorazepam or nitrazepam or triazolam or temazepam or midazolam or zopiclone or zolpidem or zaleplon or clonazepam or gabapentin or pregabalin or bupropion or modafinil or lisdexamfetamine or alprazolam) adj (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (45858)
40 exp Cocaine-Related Disorders/ (8299)
41 (cocaine adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (8462)
42 ((stimulant* or amphetamine or metamphetamine or d-amphetamine or dextroamphetamine or psychostimulant* or metylphenidate* or lisdexamfetamine*) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (3340)
43 exp Amphetamine-Related Disorders/ (3176)
44 ((hallucinogen* adj3 (dependen* or addict* or abus* or misus*)) or street drug* or LSD or microdosing or MDMA or ecstacy or GHB or Gamma Hydroxybutyrate or Gamma Butyrolactone or GBL or psychedelic*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (15431)
45 exp Inhalant Abuse/ (227)
46 (((inhalant* or Glue or volatile*) adj3 (dependen* or addict* or abus* or misus*)) or sniffing*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (3512)
47 (solvent* adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (3094)
48 (narcotic addiction* or street drug* or synthetic drug*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (2754)
49 (substance adj3 (abus* or misus* or withdraw* or addict* or dependen*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (82715)
50 (addiction disorder* or "substance use").mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (37876)
51 exp Substance-Related Disorders/ (281064)
52 exp Drug Overdose/ (11744)
53 exp Substance Abuse, Intravenous/ (15312)
54 drug overdose*.mp. (13195)

55 exp Opiate Substitution Treatment/ (3201)
56 ((opiate* or opioid* or methadone* or buprenorphine*) adj3 (substitut* or agonist*) adj3 (treatment* or therap*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (4599)
57 exp Substance Withdrawal Syndrome/ (23255)
58 (Street Drug* or designer* drug* or nps or novel psychoactive drug* or new psychoactive drug* or poly* drug* use*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (40627)
59 or/35-58 (396354)
60 34 and 59 (49152)
61 limit 60 to (meta analysis or randomized controlled trial or "systematic review") (5549)
62 (random* or rct or meta-analys* or systematic review*).ti. (422973)
63 60 and 62 (2078)
64 61 or 63 (5829)
65 limit 64 to yr="2019 -Current" (426)

EBM Reviews - Cochrane Database of Systematic Reviews 5.11.2020

1 exp Behavior Therapy/ (9141)
2 behavio* therap*.mp. (25003)
3 (behavio* adj3 modificat*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (1930)
4 exp Cognitive Behavioral Therapy/ (1041)
5 exp Motivational Interviewing/ (818)
6 (cognitive therap* or cognitive analytic therap* or motivational enhancement therap* or rational emotive therap* or dialect* behavio* therap* or motivational interview* or mindfulness).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (16661)
7 exp Psychotherapy, Rational-Emotive/ (26)
8 (twelve-step program* or 12-step program* or narcotic* anonymous* or NAA).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (354)
9 (twelve step* or 12 step*).ti. (87)
10 (solution* adj3 focus* adj3 therap*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (129)
11 (community reinforcement approach* or "Community Reinforcement and Family Training for Treatment Retention" or CRAFT-T or social reinforcement* or (psychol* adj3 reinforcement*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (989)
12 ((psychoanalytic or psychodynamic) adj3 (psychotherap* or therap*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (908)
13 exp Psychotherapy, Psychodynamic/ (89)
14 exp Psychoanalytic Therapy/ (176)
15 (psychoanalytic therap* or psychoanalytic psychotherap*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (241)
16 (interpersonal adj3 (therap* or psychotherap*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (1258)
17 (couple* therap* or marital therap* or marriage therap* or conjoint therap*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (552)
18 exp Couples Therapy/ (121)
19 exp Family Therapy/ (940)
20 exp Marital Therapy/ (119)
21 (family therap* or family psychotherap*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (1954)
22 (social adj3 network* adj3 therap*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (57)
23 contingency management*.mp. (953)
24 (community treatment* or therapeutic communit* or ACT or assertive community treatment*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (12821)
25 (((internet or web* or online or on-line or computer* or virtual realit* or VR) adj3 (therap* or psycho-therap*)) or (e-therap* or online counsel*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (15407)
26 (psychosocial intervention* or psychosocial treatment* or supportive therap*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (4128)
27 ((psychological adj3 (intervention* or treatment* or therap*)) or rehabilitat*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (51660)
28 exp Therapy, Computer-Assisted/ (3035)

29 exp Psychotherapy, Brief/ (1022)
30 exp Psychotherapy, Group/ (3422)
31 exp Reinforcement, Psychology/ (2093)
32 exp Reinforcement, Social/ (69)
33 brief intervention*.mp. (2691)
34 or/1-33 (120633)
35 exp Opioid-Related Disorders/ (1920)
36 ((opioid* or opiate* or morphine or heroin or buprenorphine or naltrexone or methadone) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (5464)
37 ((cannabinoid or cannabis or marijuana or marihuana or hemp or hash or hashish or THC or ganjia or weed or synthetic cannabinoid or pot) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (1209)
38 exp Marijuana Abuse/ (595)
39 ((drug or benzodiazepin* or analgesic* or codeine or dextropropoxyphene or buprenorphine or nalbuphine or tramadol or morphine or hydromorphone or oxycodone or pethidine or meperidine or fentanyl or methadone or diazepam or chlordiazepoxide or oxazepam or chlorazepam or nitrazepam or triazolam or temazepam or midazolam or zopiclone or zolpidem or zaleplon or clonazepam or gabapentin or pregabalin or bupropion or modafinil or lisdexamfetamine or alprazolam) adj (dependen* or addict* or abus* or misus*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (6164)
40 exp Cocaine-Related Disorders/ (1051)
41 (cocaine adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (2018)
42 ((stimulant* or amphetamine or metamphetamine or d-amphetamine or dextroamphetamine or psychostimulant* or metylphenidate* or lisdexamfetamine*) adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (501)
43 exp Amphetamine-Related Disorders/ (280)
44 ((hallucinogen* adj3 (dependen* or addict* or abus* or misus*)) or street drug* or LSD or microdosing or MDMA or ecstacy or GHB or Gamma Hydroxybutyrate or Gamma Butyrolactone or GBL or psychedelic*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (1339)
45 exp Inhalant Abuse/ (5)
46 (((inhalant* or Glue or volatile*) adj3 (dependen* or addict* or abus* or misus*)) or sniffing*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (209)
47 (solvent* adj3 (dependen* or addict* or abus* or misus*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (10)
48 (narcotic addiction* or street drug* or synthetic drug*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (157)
49 (substance adj3 (abus* or misus* or withdraw* or addict* or dependen*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (8542)
50 (addiction disorder* or "substance use").mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (18549)
51 exp Substance-Related Disorders/ (15102)
52 exp Drug Overdose/ (152)
53 exp Substance Abuse, Intravenous/ (399)
54 drug overdose*.mp. (1028)
55 exp Opiate Substitution Treatment/ (314)
56 ((opiate* or opioid* or methadone* or buprenorphine*) adj3 (substitut* or agonist*) adj3 (treatment* or therap*)).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (769)
57 exp Substance Withdrawal Syndrome/ (2049)
58 (Street Drug* or designer* drug* or nps or novel psychoactive drug* or new psychoactive drug* or poly* drug* use*).mp. [mp=ti, ot, ab, sh, hw, kw, tx, ct] (753)
59 or/35-58 (36348)
60 34 and 59 (8066)
61 limit 60 to (meta analysis or randomized controlled trial or "systematic review") [Limit not valid in CCTR,CDSR; records were retained] (4313)
62 (random* or rct or meta-analys* or systematic review*).ti. (366845)
63 60 and 62 (1785)
64 61 or 63 (4892)
65 limit 64 to yr="2019 -Current" (382)

Liite 3 Kooste tutkimusten harhan riskin arvioinneista

RCT-TUTKIMUKSET (K = kyllä kriteeri täyttyy, E = ei, kriteeri ei täyty)

Lähde	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	YHT
Alammehrjerdi ym. 2019	K	K	K	K	E	E	K	E	K	K	K	K	K	10/13
Chen ym. 2019	K	K	K	E	E	K	K	K	K	K	K	K	K	11/13
Litt ym. 2020	K	K	K	E	E	E	K	K	K	K	K	K	K	10/13
Marsden ym. 2019	K	K	K	E	E	E	K	K	K	K	K	K	K	10/13
Moore ym. 2019	K	K	E	E	E	K	K	E	E	K	K	K	K	8/13
Oveisi ym. 2020	K	K	K	E	E	E	K	E	K	K	K	K	K	9/13
Price ym. 2019a	K	K	K	E	E	E	K	K	K	K	K	K	K	10/13
Price ym. 2019b	K	K	K	E	E	E	K	K	K	K	K	K	K	10/13
Rezapour ym. 2019	E	K	K	E	E	K	K	K	E	K	K	K	E	8/13
Schäfer ym. 2019	K	K	K	E	E	K	K	E	K	K	K	K	K	10/13
Silva ym. 2020	K	K	K	E	E	E	K	E	E	K	K	K	K	8/13
Stephens ym. 2020	E	E	K	E	E	E	K	K	E	K	K	K	K	7/13
Tetrault ym. 2020	K	K	K	E	K	K	K	E	K	K	K	K	K	11/13

Q1 Onko osallistujien ryhmiin jakaminen satunnaistettu ja satunnaistamismenetelmä kuvattu riittävän tarkasti?
Q2 Ovatko tutkittavien ryhmiin jako salattu ryhmiin jakoa toteuttaneilta?
Q3 Ovatko koe- ja kontrolliryhmät samankaltaisia tutkimuksen alussa?
Q4 Ovatko tutkittavat sokkoutettu tutkimuksen ryhmäjaoista?
Q5 Ovatko intervention toteuttajat sokkoutettu tutkittavien ryhmäjaoista?
Q6 Ovatko tulosmuuttujien mittaajat sokkoutettu tutkittavien ryhmäjaoista?
Q7 Kohdeltiinko ryhmiä yhdenmukaisesti lukuun ottamatta tutkimuksen kohteena olevaa interventiota?
Q8 Pysyivätkö tutkittavat mukana tutkimuksessa seurannan aikana, ja elleivät pysyneet, kuvattiinko ja analysoitiinko seurannan aikana ilmenneet ryhmien väliset erot asianmukaisesti?
Q9 Tehtiinkö lähtöryhmien mukainen (hoitoaieanalyysi eli 'intention-to-treat') analyysi?
Q10 Mitattiinko muuttujat samalla tavalla kaikissa ryhmissä?
Q11 Mitattiinko muuttujat luotettavasti?
Q12 Käytettiinkö soveltuvia tilastollisia menetelmiä?
Q13 Onko koeasetelma tutkittavan aihealueen näkökulmasta asianmukainen, ja huomioitiinko mahdolliset poikkeavuudet perinteisestä RCT-asetelmasta tutkimuksen toteutuksessa ja analyysissa?

KATSAUSKET (K = kyllä kriteeri täyttyy, E = ei, kriteeri ei täyty)

Lähde	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	YHT
AshaRani ym. 2020	K	K	K	K	K	K	K	K	E	K	K	10/11
Hides ym. 2019	K	K	K	K	K	K	K	K	K	K	K	11/11
Ii ym. 2019	E	K	K	K	K	K	K	K	E	K	K	9/11
Ray ym. 2020	K	K	K	K	K	K	K	K	K	K	K	11/11
Sheridan Rains ym. 2020	K	K	K	K	K	K	K	K	K	K	K	11/11
Steele ym. 2020	K	K	K	K	K	K	K	K	E	K	K	10/11
Stuart ym. 2020	K	K	K	K	K	K	K	K	K	K	K	11/11

Q1 Onko katsauksen kysymys esitetty selvästi ja yksiselitteisesti?
Q2 Ovatko mukaanottokriteerit asianmukaiset verrattuna tutkimuskysymykseen?
Q3 Onko hakustrategia asianmukainen?
Q4 Ovatko käytetyt tiedonlähteet riittäviä?
Q5 Ovatko tutkimusten laadun arvioinnissa käytetyt kriteerit asianmukaiset?
Q6 Onko vähintään kaksi arvioijaa itsenäisesti toteuttanut tutkimusten kriittisen laadun arvioinnin?
Q7 Onko tietojen uuttamisvaiheessa käytetty menetelmiä virheiden minimoimiseksi?
Q8 Onko tutkimustulosten yhdistämisessä käytetty tarkoituksenmukaisia menetelmiä?
Q9 Onko katsauksessa arvioitu julkaisuharhan todennäköisyyttä?
Q10 Ovatko katsauksessa esitetyt käytännön suositukset linjassa katsauksen tulosten kanssa?
Q11 Ovatko katsauksessa esitetty jatkotutkimusehdotukset linjassa katsauksen tulosten kanssa?

Tutkimus, julkaisuvuosi Alammehrjerdi Z, Briggs NE, Biglarian A, Mokri A, Dolan K. A Randomized Controlled Trial of Brief Cognitive Behavioral Therapy for Regular Methamphetamine Use in Methadone Treatment. J Psychoactive Drugs. 2019 May 27;51(3):280–9.	
Maa, toimintaympäristö	Iran, methadone treatment services
Tutkimusasetelma	A multi-center randomized controlled trial
Harhan riski (JBI)	**JBI: 10/13** ***Following criteria increased the risk of bias:*** Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment? Q8: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Female methadone patients; being aged 18 years or older; reporting methamphetamine use, by any route; and reporting regular methamphetamine use, which was confirmed by a score of at least 0.14 on the methamphetamine items of the Opiate Treatment Index (OTI). Other inclusion criteria included being willing and able to comply with the study requirements, reporting a stable methadone dose for at least three months prior to enrolment, being able to attend study appointments, and providing urine specimens to enable detection of methamphetamine use. **Exclusion criteria:** engagement in CBT for substance-related problems in the last 12 months, reported drug withdrawal or intoxication symptoms, and reported severe medical and/or psychiatric problems at the time of inclusion.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 120 female methadone patients • intervention group n = 60, control group n = 60 Demographic data not available **Baseline** Frequency of methamphetamine use (Opiate Treatment Index (OTI)) • Treatment: mean 1.3, SD 0.47 • Control: mean 1.2, SD 0.44 Severity of methamphetamine dependence (Severity of Dependence Scale (SDS), *cut-off point 4 indicates methamphetamine dependence*): • Treatment: mean 9.9, SD 2.20 • Control: mean 9.9, SD 2.52 Number of days of methamphetamine use (last 28 days) • Treatment: mean 18.9, SD 1.41 • Control: mean 19.1, SD 1.61

	Polydrug use • heroin n = 31 participants • benzodiazepines n = 20 participants
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**BCBT (Brief-CBT)** Four weekly 60-minutes treatment sessions, sessions included motivational interviewing, controlling thoughts and behaviors, coping with craving, and refusal skills. Participants were also given pamphlets to help them practice the learned BCBT skills on a daily basis. Participants also received methadone treatment.
Interventioon sitoutuminen	- Nineteen participants in the treatment group (31.66%) were abstinent from methamphetamine at post-treatment and follow-up.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Treatment as usual** The control sessions consisted of cannabis, alcohol, tobacco, and opiate education. Participants also received methadone treatment.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcome** • Frequency of methamphetamine use, past 28 days (Opiate Treatment Index (OTI), urine analysis) **Secondary outcomes** • Severity of methamphetamine dependence (Severity of Dependence Scale (SDS)) • Number of days of methamphetamine use (Timeline Follow Back (TLFB), urine analysis) • Social functioning (Opiate Treatment Index (OTI) • Readiness to change (Contemplation Ladder (CL)) • Psychological well-being (General Health Questionnaire-28 (GHQ-28))
Seuranta-aika ja mittauspisteet	Baseline (week 0), post-treatment (week 4), three-month follow-up (week 12)
Tutkimuksen keskeyttäneet (n-määrät, syyt)	Participants (n = 16) were not followed because they left methadone treatment: • Treatment group: lost to follow up n = 7 • Control group: lost to follow up n = 9
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Frequency of methamphetamine use** Baseline – 4 weeks – 12 weeks, mean (SD) • Treatment: 1.3 (0.47) – 0.12 (0.15) – 0.11 (0.19) • Control: 1.2 (0.44) – 1.0 (0.54) – 1.0 (0.38) There were significant differences in terms of group ($F = 134.2$, $p < 0.001$), time ($F = 106.9$, $p < 0.001$), and group × time interaction ($F = 58.7$, $p < 0.001$). Pairwise t-test of group differences indicated that between-group differences for the frequency of methamphetamine use were significant at post-treatment ($t = -12.0$, $p < 0.001$) and follow-up ($t = -12.0$, $p < 0.001$).

	Severity of methamphetamine dependence Baseline – 4 weeks – 12 weeks, mean (SD) • Treatment: 9.9 (2.20) – 3.8 (2.09) – 3.7 (2.15) • Control: 9.9 (2.52) – 9.8 (2.59) – 9.9 (2.65) There were significant effects in terms of group ($F = 105.4$, $p < 0.001$), time ($F = 153.5$, $p < 0.001$), and group × time interaction ($F = 151.4$, $p < 0.001$). Pairwise tests indicated that between group differences on the SDS were significant at posttreatment ($t = -14.1$, $p < 0.001$) and follow-up ($t = -14.4$, $p < 0.001$). **Number of days of methamphetamine use** Baseline – 4 weeks – 12 weeks, mean (SD) • Treatment: 18.9 (1.41) – 5.2 (3.77) – 4.4 (3.34) • Control: 19.1 (1.61) – 8.8 (1.39) – 18.8 (1.42) There were significant differences in terms of group ($F = 769.0$, $p < 0.001$), time ($F = 401.4$, $p < 0.001$), and group × time interaction ($F = 369.0$, $p < 0.001$). Between-group differences on the TLFB were significant at post-treatment ($t = -26.2$, $p < 0.001$) and follow-up ($t = -30.7$, $p < 0.001$). **Motivation to change** There were significant differences in terms of group ($F = 275.3$, $p < 0.001$), time ($F = 140.6$, $p < 0.001$), and group × time interaction ($F = 150.0$, $p < 0.001$). Between-group differences on the CL were significant at post-treatment ($t = 17.5$, $p < 0.001$) and follow-up ($t = 15.1$, $p < 0.001$). **Psychological well-being** There were significant differences in terms of group ($F = 86.7$, $p < 0.001$), time ($F = 89.8$, $p < 0.001$), and group × time interaction ($F = 103.5$, $p < 0.001$). Between group differences on the GHQ-28 were significant at post-treatment ($t = -13.5$, $p < 0.001$) and follow-up ($t = -14.4$, $p < 0.001$). **Social functioning** There were also significant differences in terms of group ($F = 11.0$, $p = 0.001$), time ($F = 7.6$, $p = 0.001$), and group × time interaction ($F = 7.4$, $p = 0.001$). Between group differences for social functioning were significant at post-treatment ($t = -3.6$, $p = 0.001$) and follow-up ($t = -3.5$, $p = 0.001$).
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi AshaRani P, Hombali A, Seow E, Ong WJ, Tan JH, Subramaniam M. Non-pharmacological interventions for methamphetamine use disorder: a systematic review. Drug Alcohol Depend. 2020 Jul; 212:108060.	
Maa, toimintaympäristö	USA (n = 24 RCTs), Australia (n = 6), Iran (n = 4), Thailand (n= 1), South Africa (n = 1), Germany (n = 1), China (n = 7); outpatient setting
Tutkimusasetelma	Systematic review (narrative)
Harhan riski (JBI)	**JBI: 10/11** ***Following criteria increased the risk of bias:*** Q9: Was the likelihood of publication bias assessed?

	The assessment of the risk of bias addressed in study: The overall assessment of the included studies varies from 'some concerns' to 'high risk' with none of the studies falling under low risk of bias.
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Participants that were clinically diagnosed (as METH abuse/dependent/use disorder) according to the Diagnostic and Statistical Manual of Mental Disorders IV/5 (DSM-IV/5), International Statistical Classification of Diseases (ICD) criteria or as established by a cut-off score using the Severity of Dependence Scale (SDS) or other relevant diagnostic instruments/ criteria. Non-pharmacological treatment for MUD both outpatient treatment and residential rehabilitation. Interventional study designs such as before and after with/without a control group, randomised and non-randomised trials that investigated the effectiveness of various non-pharmacological interventions were included. **Exclusion criteria:** Studies that only reported an outcome other than the primary outcomes of interest of this review, and those studies conducted among abstinent METH abusers in the prison settings or among subjects who were currently abstinent not as a part of their ongoing treatment. Studies were excluded if the participants were on substitution therapy during the study, or if the study included polysubstance (cocaine, heroin, cannabis) abusers and had not reported findings specific to the use of METH separately. Qualitative studies, case reports, case series (includes reports with less than 10 participants) and systematic reviews were excluded.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	n = 10 RCTs (excl. exercise and Repetitive Trans cranial magnetic stimulations and Transcranial Direct Current Stimulations interventions, non-RCTs and studies with METH abuse/MUD participants, total N < 50 in intervention/control comparison): • **Cognitive behavioral therapy (CBT):** n = 2 RCTs (n = 80 METH dependent females, outpatient setting; n= 41 men who have sex with men (MSM) who met diagnostic criteria for crystal METH dependence, outpatient setting) • **Contingency management (CM)**: n = 3 RCTs (n = 131 METH dependent MSM, outpatient setting; n= 118 treatment-seeking participants with METH dependence, outpatient setting; n = 120 treatment-seeking METH dependent subjects, outpatient setting) • **Motivational interview (MI):** n = 2 RCTs (n = 217 METH dependent individuals, outpatient setting; n = 163 METH dependent subjects, outpatient setting) • **Matrix model intervention**: n = 3 RCTs (n = 978 treatment-seeking METH dependent subjects, outpatient setting; n = 784 METH dependent treatment seekers, outpatient setting; n = 24 METH dependent male subjects, outpatient setting)
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	See above
Interventioon sitoutuminen	-

VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	Treatment as usual, waitlist (one study compared intensive vs. standard MI)
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	Relapse, abstinence, craving, METH use
Seuranta-aika ja mittauspisteet	-
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Cognitive behavioral therapy (CBT):** *Marlot CBT vs. TAU*: Significant reduction in relapse rates (49.4 vs 70.7, p = 0.001) and craving (53.8 vs 71.7, p=0.001) when compared to the control arm. *Behavioral activation (CBT) vs. TAU*: At the end of 6 months' follow-up, those in the active arm reported significantly more days of abstinence from METH compared to the controls (51.1 vs 39, p<0.0001). **Contingency management (CM)**: *Different schedules of CM vs. TAU:* Those in the CM arm were 1.7-2.5 times more likely to submit a negative urine than the standard conditions. None of the CM conditions were significantly different from one another. Treatment completion had a positive effect on abstinence. Those who completed the 16 weeks' treatment were more likely to submit a METH negative urine sample at follow up (OR = 21.79, p<0.05). *Different durations of CM vs. TAU:* Compared to the standard treatment, those in 1-month CM condition were almost 4 times more likely to submit a negative METH Urine Analysis (UA), the 2-month CM condition were approximately 2.5 times more likely to submit a negative METH UA and the 4-month CM condition were about 7.25 times more likely to submit a negative METH UA. *CM vs. TAU(?):* Greater reductions in METH use and risky behaviours at the end of 3 months. Participants in the CM group showed significantly more health promoting behaviours and reduced risky behaviours than the control group. **Motivational interview (MI):** *Intensive MI vs. standard MI*: No significant differences in METH use was seen when intensive MI (IMI, 9 sessions) was compared with standard MI (90 min session), a reduction in co-occurring psychiatric problems/alcohol use was seen among those who received IMI. 1/2 studies showed reduction in METH use during the treatment. **Matrix model intervention:** *Matrix model vs. TAU:* Reduction in METH use, risky behaviours and more days of abstinence in the active arm. The effect lasted for 18 months. *Regulated 12-step matrix model programme vs. waitlist/no treatment*: Intervention effectively reduced METH use and improved craving management and control.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Chen J, Yu J, Cao J, Xiao Y, Gu H, Zhong R, et al. Abstinence Following a Motivation-Skill-Desensitization-Mental Energy Intervention for Heroin Dependence: A Three-year Follow-up Result of a Randomized Controlled Trial. Curr Med Sci. 2019 Jun;39(3):472–82.	
Maa, toimintaympäristö	China, a compulsory drug rehabilitation center
Tutkimusasetelma	RCT
Harhan riski (JBI)	**JBI: 11/13** ***Following criteria increased the risk of bias:*** Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** The male heroin users who met all of the following inclusion criteria were included: (1) heroin dependence as diagnosed by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), (2) receiving detoxification treatment in the compulsory drug rehabilitation center for over one year, and (3) willing and able to participate in the study and sign the informed consent. **Exclusion criteria:** The individuals were excluded if they met the criteria as follows: (1) substance dependence on other illicit drugs, (2) high myopia or other ophthalmic diseases, (3) psychotic disorder as assessed by the DSM-IV, such as schizophrenia, and (4) major organ dysfunction, such as cardiac insufficiency, hepatic insufficiency or renal insufficiency
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 96 male with heroin dependence • Intervention group n = 46, control group n = 43 Age, mean (SD): • 35.0 (6.6) Sex: • male 100% Years of heroin use, year, mean (SD): • 7.8 (4.3)
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Motivation-Skill-Desensitization-Mental Energy (MSDE):** The MSDE intervention consists of motivational interviewing, coping skills training, eye movement desensitization and reprocessing (EMDR), and mindfulness-based psychotherapy as follows. (1) The motivational interviewing protocol was used to increase participants' readiness to change. (2) The coping skills training adapted from a cognitive-behavioral therapy manual was used to help the participants deal with high-risk situations. (3) The standard EMDR protocol outlined by Shapiro was modified in our protocol and aimed to reduce cravings and negative emotions. (4) The mindfulness-based psychotherapy mainly included mindfulness practice and positive psychology intervention and was integrated into our protocol for decreasing negative emotions, establishing an emotional connection, and improving mental energy. The MSDE intervention was conducted six days per week and four hours per day for four weeks.
Interventioon sitoutuminen	-

VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	Those in the control group received a series of lectures on skills training, which were group health education sessions on coping skills
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcome:** • Abstinence rates of heroin and other illicit drugs (Timeline Follow Back) **Secondary outcomes:** • Readiness to change (Contemplation Ladder (CL)) • Craving (Obsessive Compulsive Drug Use Scale (OCDUS)) • Depression (Beck Depression Inventory (BDI)) • Aggression (Aggression Questionnaire (AQ))
Seuranta-aika ja mittauspisteet	1, 3, 6, 12, 24, and 36 month(s) after their discharge
Tutkimuksen keskeyttäneet (n-määrät, syyt)	At the end of the 3-year follow-up, 52.2% (24/46) of participants in the MSDE intervention group and 23.3% (10/43) in the control group completed the study. Reasons for drop out were losing contact at the follow-up time points in all cases. Results of the GEE analysis showed that the retention rate declined over time, and the MSDE intervention group yielded a relatively high retention rate compared to the control group (P<0.001). There was no significant interaction effect.
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Abstinence:** The estimating equation (GEE) model results demonstrated that the abstinence rates declined during the 3-year follow-up. The MSDE intervention group had a significantly greater effect on drug abstinence than the control group (P=0.027). The interaction effect of group and time was not statistically significant. **Secondary outcomes:** Controlling for baseline scores, a series of ANCOVAs showed a significant increase in participants' CL score (P<0.001) as well as decreases in the OCDUS score (P<0.001), BDI score (P<0.001), and AQ score (P=0.033).
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Hides L, Quinn C, Stoyanov S, Kavanagh D, Baker A. Psychological interventions for co-occurring depression and substance use disorders. Cochrane Database Syst Rev [Internet]. 2019;2019(11).	
Maa, toimintaympäristö	USA (n = 7 RCTs)
Tutkimusasetelma	Systematic review and meta-analysis
Harhan riski (JBI)	**JBI: 11/11** ***Following criteria increased the risk of bias:*** - ***The assessment of the risk of bias addressed in study:*** All seven studies were at high risk of performance bias. Two of six studies were at high risk of selection bias due to inadequate random sequence generation. Two studies were at

	high risk for detection bias due to the use of nonblinded interview raters. All four studies that reported self-report outcomes were at unclear risk of detection bias and four of the seven studies were at high risk of attrition bias. Risk of selective reporting was unclear in all seven studies, as none had published research protocols.
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Individuals (adults and adolescents) with co-occurring Diagnostic and Statistical Manual (DSM) or International Classification of Diseases (ICD) depression and substance use disorder (excluding nicotine) derived using a structured clinical interview were included.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	n = 3 RCTs (excl. studies with SUD/abuse participants, total N < 50 in intervention/control comparison): 1. Participants: 90 veterans with DSM-IV Major Depressive Disorder and co-occurring alcohol, cannabis and/or stimulant dependence on the Comprehensive International Diagnostic Interview (CIDI), mean age 48.8 (SD = 7.9), 92 % male 2. Participants: 206 Veterans with DSM-IV Major Depressive Disorder and co-occurring alcohol, cannabis and/or stimulant dependence on Comprehensive Diagnostic Interview (CIDI) + HDRS > 20 and recent substance use (past 90 days), mean age 48.2 (SD = 7.7), 92 % male 3. Participants: 170 adolescents with a current DSM-IV depression disorder (MDD, dysthymia, adjustment disorder with depressed mood; depression NOS) and non-nicotine substance use disorder on the Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL); Drug use within the last 90 days (TLFB), 13-18 years, > 25 % female
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	• CBT with and without motivational interviewing Integrated Cognitive Behavioural Therapy (ICBT) • Integrated Functional Family Therapy (FFT) and Coping with Depression (CWD)
Interventioon sitoutuminen	See results
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	See results
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes** • Substance use (including abstinence, e.g., Timeline Follow Back (TLFB) and self-report instruments or presence of DSM/ICD substance use disorders) • Treatment attendance (the average number of sessions attended) • Treatment retention (number of participants still in treatment at the end of the study)
Seuranta-aika ja mittauspisteet	-
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-

KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Integrated Cognitive Behavioural Therapy (ICBT) vs. Twelve Step Facilitation (TSF)** Substance use: The meta-analysis consisting of two studies (296 participants) that compared ICBT to TSF, suggested no substantial difference between the groups in proportion of days abstinent in the past three months, as assessed by the Timeline Follow Back (TLFB), at immediately post-treatment (MD -2.84, 95% CI -8.04 to 2.35; 2 studies, 220 participants). At six-to 12-month follow-up, the ICBT group experienced on average 10.76% more days abstinent (95% CI 3.10 to 18.42, P = 0.006; 2 studies, 189 participants) compared with the TSF group. Heterogeneity was of no importance in either analysis (I2 = 0%; P = 0.39; I2 = 0%; P = 0.65), respectively. Treatment attendance and retention: The meta-analysis consisting of two studies (296 participants) that compared ICBT to TSF, revealed no substantial difference between the groups in treatment retention (RR 0.95, 95% CI 0.72 to 1.25; 2 studies, 270 participants) or attendance (MD -1.27, 95% CI -6.10 to 3.56; 2 studies, 296 participants). Heterogeneity was substantial for both analyses (I2 = 74%, P = 0.05; I2 = 67%, P = 0.08). **Integrated Functional Family Therapy (FFT) and Coping with Depression (CWD) vs. sequenced FFT-CWD; Integrated FFT and CWD vs. sequenced CWD-FFT** One study with 170 adolescents compared integrated FFT and CWD to sequential FFT followed by CWD, or CWD followed by FFT. Substance use: The TLFB interview was used, with the square root of the percentage of past 90-day daily use reported at all assessment points. The integrated group had higher daily substance use at post-treatment when compared with the FFT-CWD (MD 1.30, 95% CI 0.01 to 2.59) but not the CWD-FFT (MD 0.60, 95% CI -0.69 to 1.89). At 12-month follow-up the integrated treatment had higher daily substance use than both the FFT-CWD (MD 1.32, 95% CI 0.00 to 2.64) and the CWD-FFT (MD 1.32, 95% CI 0.02 to 2.62) sequential groups. Treatment retention: Treatment adherence was assessed through premature termination (attending < 2 sessions) and mean total session attendance (maximum sessions 24). There was no difference between integrated or sequential treatment for treatment retention (RR 0.47, 95% CI 0.15 to 1.43; RR 0.66, 95% CI 0.20 to 2.12); however, integrated treatment had higher mean treatment attendance than CWD-FFT (MD 4.10, 95% CI 0.98 to 7.22) but not FFT-CWD (MD 1.40, 95% CI -1.58 to 4.38).
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Ii T, Sato H, Watanabe N, Kondo M, Masuda A, Hayes SC, Akechi T. Psychological flexibility-based interventions versus first-line psychosocial interventions for substance use disorders: Systematic review and meta-analyses of randomized controlled trials. J Context Behav Sci. 2019 Jul;13:109–20.	
Maa, toimintaympäristö	USA (n = 9 RCTs), Canada (n=1); clinic, inpatient, outpatient settings
Tutkimusasetelma	Systematic review and meta-analysis
Harhan riski (JBI)	**JBI: 9/11** ***Following criteria increased the risk of bias:*** Q1: Is the review question clearly and explicitly stated? Q9: Was the likelihood of publication bias assessed? ***The assessment of the risk of bias addressed in study:*** 6/10 studies had a low risk in random sequence generation (selection bias) 5/10 studies were considered to have a low risk in allocation concealment (selection bias) 8/10 had low risk in detection bias 10/10 studies had a high risk of performance bias 10/10 high risk in attrition bias 10/10 unclear risk in selective reporting
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** To be eligible, a given randomized clinical trial (RCT) had to investigate the efficacy of a psychological flexibility–based (PF) intervention compared with a first-line psychosocial intervention for SUDs in any study setting (e.g., primary care, inpatient, community-based, secondary, or specialist settings). SUD diagnosis had to be based on a structured assessment for diagnostic criteria of the DSM-IV, DSM-5, ICD-10 or other formal assessment criteria. Substance in the present study referred to alcohol, amphetamines, cannabis, cocaine, designer drugs, heroine, methamphetamines, other narcotics, and street drugs, as well as prescription drugs such as benzodiazepines. Participants comorbid for physical or common mental disorders were eligible for inclusion, as were all ages and genders. Third-wave cognitive behavioral therapies (CBT) that deliberately target psychological flexibility and categorized them as psychological flexibility–based interventions (PF interventions). PF interventions included acceptance and commitment therapy (ACT), dialectical behavior therapy (DBT), mindfulness-oriented recovery enhancement, and distress tolerance therapy. **Exclusion criteria:** Mindfulness-based relapse prevention (MBRP) was not judged to be a PF intervention as it did not include a component of valuing or behavioral commitment as defined by the Psychological Flexibility Model. For this same reason, mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT) were excluded from the present review. Because contingency management was included on both first-line and third-line interventions, it was excluded to prevent categorical errors.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 10 RCTs → one comparison with 3 RCTs included

	Participants (n = 3 RCTs): 1. N = 56 opioid dependence 2. N = 86 methadone treatment 3. N = 133 SUD
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Acceptance and commitment therapy (ACT) (Psychological flexibility–based intervention)** • Individual ACT + methadone treatment (n = 2 RCTs) • Group ACT + TAU (n = 1 RCT)
Interventioon sitoutuminen	-
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**First-line psychosocial interventions** Following the NICE guidelines, first-line psychosocial interventions for SUD were defined to include brief motivational interventions, goal setting, relapse prevention, psychoeducation, and problem-solving. Psychosocial advice drawn from evidence-based formal psychological interventions (e.g., for comorbid psychiatric disorders) was considered psychoeducation and was included in the first-line intervention category. Self-help programs such as Narcotics Anonymous and Cocaine Anonymous were also included. In all cases these were based on 12-step principles. 1. Methadone maintenance + intensive twelve-step facilitation 2. TAU (group + intensive twelve-step facilitation) 3. Drug counselling
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcome:** Substance discontinuation (defined as less than one use per week) at the end of treatment and up to longest follow up after starting the intervention (usually six months after starting the interventions).
Seuranta-aika ja mittauspisteet	-
Tutkimuksen keskeyttäneet (n-määrät, syyt)	There was no significant difference in dropout rate between the two groups of interventions (N = 10 RCTs). The dropout rate from PF interventions was 42.7%, compared with 41.4% for first-line psychosocial interventions (RR=0.98; 95% CI=0.77 to 1.24, p=0.86), and there was no statistical heterogeneity in the dropout rate among these 10 studies (chi-squared test = 14.09, p=0.12, I^2=36%).
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	There was no significant subgroup difference (p=0.89) between ACT and first-line psychosocial interventions for substance discontinuation (3 studies, N=275 participants: RR=1.34; 95% CI=0.92 to 1.96, p=0.13, I^2 = 0%).
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Litt MD, Kadden RM, Tennen H, Petry NM. Individualized assessment and treatment program (IATP) for cannabis use disorder: Randomized controlled trial with and without contingency management. Psychol Addict Behav. 2020 Feb;34(1):40–51.	
Maa, toimintaympäristö	USA
Tutkimusasetelma	Randomized Controlled Trial
Harhan riski (JBI)	**JBI: 10/13** ***Following criteria increased the risk of bias:*** Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** To be eligible, individuals had to be at least 18 years old, meet DSM–IV criteria for cannabis dependence (assessed by the Structured Clinical Interview for DSM–IV Axis I Disorders). Participants could meet criteria for dependence on other substances but must have reported that marijuana was their primary substance of abuse. **Exclusion criteria:** • acute medical/psychiatric problems that required inpatient treatment (e.g., acute psychosis, severe depression, suicide/homicide risk), • reading ability below the fifth-grade level, and • lack of reliable transportation or excessive commuting distance
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 198 randomly assigned to 1 of 4 treatment conditions: • IATP (n=48) • IATP-CM (n=50) • MET-CBT (n=49) • MET-CBT-CM (n=51) Participants: • 58% male • mean age 36 years (SD 12.0) • 51% White, 28% Black, 14% Hispanic, 7% other. • Mean years of schooling 13.7 (SD 5.8), • 60% were employed at least part time • 20% were living with a spouse or partner
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Individualized assessment and treatment program (IATP) with and without the addition of contingency management (CM)** The individualized assessment and treatment program (IATP) for cannabis use disorder was intended to provide patients with the coping skills they actually need. The treatments were conducted on an outpatient basis in 60-70 min sessions and were guided by detailed manuals that provided specific guidelines to therapists. Therapists were MA-level counselors with experience in CBT. The same therapists were used to

	conduct all treatments to minimize therapist effects. Therapists received extensive training in both MET-CB and IATP. Patients had 12 weeks to complete the nine-session programs. **Contingency management (CM)** Two of the treatment conditions included CM for marijuana abstinence. A fishbowl drawing procedure was used to deliver reinforcement. Participants in all conditions provided a urine specimen at each treatment session. Patients in CM conditions with a cannabis-negative urine earned the opportunity to draw from the fishbowl. The average total earned per participant was $63.00 (SD $92.00) over 9 weeks of treatment, with a minimum of $0.00 and a maximum of $432.00.
Interventioon sitoutuminen	Participants in all treatments attended a mean of 5.7 (SD 3.5; range 0–9) sessions, with no differences between conditions. In each treatment condition therapists recorded completion of assigned activities. Patients in all conditions completed an average of 62% (range 0%–90%) of assignments, with no differences between conditions.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**A conventional combined motivational enhancement cognitive-behavioral treatment (MET-CBT) with or without the addition of contingency management (CM)** MET-CBT was based on cognitive-behavioral principles and designed to remediate deficits in skills for coping with interpersonal and intrapersonal (e.g., anger, craving) antecedents to marijuana use. The treatment consisted of one session of motivational enhancement therapy (MET), followed by eight sessions of coping skills training.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes:** • Probability of total cannabis abstinence each month (Timeline follow-back (TLFB), urine test) • Proportion days abstinent (PDA) from cannabis each month (TLFB) • Marijuana-related problems (Marijuana Problems Scale (MPS)) **Secondary outcomes:** • Longest duration of abstinence (LDA) from cannabis (TLFB) • Strategies used by patients in treatment to remain abstinent (48-item Coping Strategies Scale (CSS)) • Self-efficacy (Marijuana Self-Efficacy Scale (MSE))
Seuranta-aika ja mittauspisteet	Baseline, post-treatment (month 2), and at months 5, 8, 11, and 14
Tutkimuksen keskeyttäneet (n-määrät, syyt)	IATP: lost n=7 IATP-CM: lost n=8 MET-CBT: lost n=11 MET-CBT-CM: lost n=10
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Probability of total cannabis abstinence each month** Significant main effects were seen for treatment condition, and for time. As indicated by the time effect and reflected in the abstinence rates in, likelihood of abstinence tended to increase over time. The Treatment X Time interaction was not

	significant. In examining the planned contrasts, the comparison of IATP versus MET-CBT was significant (B=1.33, 95% CI 0.31; 2.34, $p < 0.05$). Analysis of mean estimates indicated that the IATP conditions were superior to the MET-CBT conditions in promoting abstinence. Likewise, the linear contrast was also significant. The means of the estimates indicated, however, that the most successful treatment was IATP alone rather than IATP-CM. At Months 13 and 14, abstinence rates among the IATP conditions exceeded 43%. The contrast of CM versus no CM was not significant; the addition of CM to treatment did not predict greater probability of abstinence. **Proportion days abstinent (PDA) from cannabis each month** Similar results were seen for PDA. Significant effects were seen for treatment condition and for the Treatment X Time interaction. PDA increased over time and the IATP condition yielded the most abstinent days. The significant contrast of IATP versus MET-CBT suggests that IATP yielded better outcomes than MET-CBT. The linear contrast was also significant, but again, the IATP condition without CM led to the best outcomes. The contrast of CM versus no CM was not significant. **Marijuana-related problems** The MPS scores appeared to be insensitive to treatment differences. MPS scores decreased significantly from pre- to post-treatment and remained low throughout the 14 months of follow-up. **Longest duration of abstinence (LDA) from cannabis** The mean LDA ranged from 14 days (SD 21.3) in the MET-CBT condition to 26 days (SD 27.2) in the MET-CBT-CM condition. Analysis of variance indicated a significant treatment effect on LDA, $F(3, 1021) = 10.35$, $p < 0.001$. Consistent with expectations, treatment contrasts indicated that the CM conditions yielded significantly more continuous days of abstinence during treatment than did the no CM conditions, $t(1,021) = 4.46$, $p < 0.001$. **Coping (CSS) and self-efficacy (MSE)** There was a main effect for time on CSS scores, such that coping scores increased from pre- to post-treatment, with significant contrasts, such that IATP conditions yielded higher coping scale scores than did the MET-CBT conditions. The contrast of CM versus no CM conditions was not significant. Analysis of MSE scores indicated a main effect for treatment, and for time, reflecting a significant increase in self-efficacy from pre- to post-treatment. The Treatment X Time interaction was not significant, but evaluation of means indicated that the IATP conditions elicited higher self-efficacy ratings than did the METCBT conditions.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Marsden J, Stillwell G, James K, Shearer J, Byford S, Hellier J, Kelleher M, Kelly J, Murphy C, Mitcheson L. Efficacy and cost-effectiveness of an adjunctive personalised psychosocial intervention in treatment-resistant maintenance opioid agonist therapy: a pragmatic, open-label, randomised controlled trial. Lancet Psychiatry. 2019 May;6(5):391–402.	
Maa, toimintaympäristö	UK, a specialist UK National Health Service community addictions clinic
Tutkimusasetelma	A pragmatic, open-label, randomised controlled trial
Harhan riski (JBI)	**JBI: 10/13** ***Following criteria increased the risk of bias:*** Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Eligible patients were aged 18 years or older, met the criteria for opioid or cocaine dependence, or both, in the past 12 months (as measured with the MINI International Neuropsychiatric Interview according to DSM-IV) and voluntarily sought continued oral maintenance opioid agonist therapy, which they had been prescribed for at least 6 weeks. **Exclusion criteria:** Patients were excluded if they had made a suicide plan in the past month or had attempted suicide in the past 6 months, had medically uncontrolled health conditions, were involved in legal proceedings with a risk of incarceration, or had participated in a treatment-based intervention study of substance use disorder in the past 6 months.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 273 participants with opioid or/and cocaine dependence • Intervention group (n=136) / control group (n=137) Age, mean (SD): • Intervention group: 43.1 (7.8) / Control group: 42.6 (7.8) Sex • Male: n = 103 (76%) / n = 102 (74%) • Female: n = 33 (24%) / n = 35 (26%) Opioid agonist therapy • Methadone: n = 93 (68%) / n = 93 (68%) • Buprenorphine: n = 43 (32%) / n = 44 (32%) Weeks of therapy at enrolment, median (range): 26 (9–89) / 25 (11–88) Substance dependence (past 12 months) • Opioid: n = 118 (87%) / n = 115 (84%) • Cocaine: n = 94 (69%) / n = 96 (70%) Drug use in past 28 days (self-report) • Opioids (illicit or non-prescribed): n = 124 (91%) / n = 126 (92%) • Crack cocaine: n = 114 (84%) / n = 114 (83%) • Cocaine powder: n = 14 (10%) / n = 12 (9%) • Injection of illicit drugs: n = 43 (32%) / n = 46 (34%) Urine drug screen • Morphine (opioid): n = 116 (85%) / n = 115 (84%) • Cocaine (benzoylecgonine): n = 103 (76%) / n = 107 (78%) • Benzodiazepines: n= 28 (21%) / n = 38 (28%)

INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Personalised psychosocial intervention** Intervention comprised of a flexible toolkit of psychological-change methods which included cognitive behavioural therapy for coping with cravings and behavioural experiments to modify disorder maintaining beliefs, contingency management to reinforce abstinence, recovery activities, and clinic attendance, with retail store vouchers as the reinforcer; 12-step group facilitation; behavioural activation for depression; and techniques to engage partners and family members in participants' treatment. The case formulation and results of baseline psychological tests were used to inform the content of the psychosocial intervention. All participants were encouraged to select one of the three contingency-management behavioural targets (ie, clinic attendance, recovery activities, or drug abstinence). Intervention was added to treatment as usual. Intervention was designed for completion in 12 weeks (two additional weeks were allowed if treatment sessions were missed). Sessions were weekly and lasted 60 min, but participants with depression had the option of attending a 30-min session twice weekly instead.
Interventioon sitoutuminen	134 (99%) participants in the psychosocial intervention group and 125 (93%) in the control group attended the clinic to receive general counselling and support once or more. Participants in the psychosocial intervention group attended a mean of 8.8 (SD 5.4; range 1–33) scheduled key worker appointments, whereas those in the control group attended 7.5 (5.1; 0–28). Participants in the psychosocial intervention group attended a mean of 4.9 (SD 4.9; range 0–20) psychosocial intervention sessions. 79 (59%) of 135 attended more than a third of their scheduled sessions and were classified as adherent.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Treatment as usual only** All participants had fortnightly 30-min individual appointments at the service with their key worker for drug counselling. Adjustments to medication doses (methadone/ buprenorphine treatment) were made during periodic medical reviews. For each visit, participants in both groups had their travel expenses covered, and they received a £20 retail store voucher for completing research measures.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcome** • Treatment response = no reported use of opioids or cocaine during the 28 days before the final follow-up interview and one or more negative urine drug tests for heroin and cocaine (and no positive tests) over the same period) **Secondary outcomes** • Number of days abstinent from opioids and cocaine in the past 28 days (recorded by treatment outcome profiles) • Retention in treatment (i.e., discontinuation of opioid agonist therapy) • Treatment adherence (attendance at at least a third of scheduled sessions) • Work and social functioning (Work and Social Adjustment Scale (WSAS)) • Cognitive function (Montreal Cognitive Assessment (MoCA)

	• Depression symptoms (Patient Health Questionnaire (PHQ-9)) • Anxiety symptoms (Generalized Anxiety Disorder scale (GAD-7)) • Mean costs of service use (Adult Service Use Schedule (AD-SUS))
Seuranta-aika ja mittauspisteet	Baseline, 18 weeks
Tutkimuksen keskeyttäneet (n-määrät, syyt)	Intervention group (n = 136 allocated): • 80 with data at 6-week follow-up visit (Intervention started) • 49 with data at 10-week follow-up visit • 21 with data at 14-week follow-up visit • 120 with data at 18-week follow-up visit Control group (n = 137 allocated): • 84 with data at 6-week follow-up visit • 50 with data at 10-week follow-up visit • 15 with data at 14-week follow-up visit • 117 with data at 18-week follow-up visit
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Treatment response** At 18 weeks, 22 (16%) of 135 participants in the psychosocial intervention group were treatment responders, compared with nine (7%) of 135 in the control group (adjusted log odds 1.20 [95% CI 0.01–2.37]; p=0.048). The predicted probability of being a treatment responder at 18 weeks was 0.171 in the psychosocial intervention group and 0.091 in the control group. In sensitivity analyses in which data from after 24 weeks were excluded, the adjusted log odds of being a treatment responder were 2.31 (95% CI 0.62–4.00; p=0.007) for the psychosocial intervention group compared with the control group. **Days abstinent, percent of days abstinent (PDA)** Participants in the psychosocial intervention group reported significantly more opioid-abstinent (72.62 vs. 56.78, p=0.001) and crack abstinent days (78.98 vs. 67.34, p=0.009) than those in the control group. Adjusted treatment effect (Cohen's d effect sizes) for opioid PDA 0.39 (95% CI 0.15 to 0.62); crack cocaine PDA 0.27 (95% CI 0.07 to 0.47); cocaine PDA 0.12 (95 % CI −0.13 to 0.36). **Retention in treatment** We noted no between-group difference in retention in either unadjusted (χ^2 1.20; p=0.270) or adjusted analyses (0.26; p=0.610). **Work and social functioning, cognitive function, depression, anxiety** At 18 weeks, mean WSAS scores were significantly lower (p=0.016) in the psychosocial intervention group than in the control group (effect size 0.27 (95% CI 0.05 to 0.49)). No between group differences were noted in cognitive function, depression, or anxiety symptoms.
Kustannukset ja kustannusvaikuttavuus	Complete economic data were available for 95 (70%) of 135 participants in the psychosocial intervention group and 104 (77%) of 135 in the control group. The use of secondary care, primary care, and social care services was broadly similar between groups, although the psychosocial intervention group spent more nights in hospital.

	Costs of interventions for opioid use disorder were significantly higher in the psychosocial intervention group than in the control group (mean difference £561 [SE 60; 95% CI 443–680]; p<0.0001]). Societal costs, including costs of criminal activity and NHS and personal social services costs, did not differ significantly between groups. The cost-effectiveness acceptability: the probability that the psychosocial intervention was cost-effective compared with treatment as usual was greater than 50% at a willingness-to-pay threshold of £30 or higher per 1% improvement in the probability of treatment response (ranging from 47% at a threshold of £0 to 87% at a threshold of £1000). The probability that the psychosocial intervention was cost-effective compared with treatment as usual was 60% at the NICE willingness-to-pay threshold of £20 000 per QALY and 67% at the £30 000 per QALY threshold.
Turvallisuus	20 (15%) of 136 patients in the psychosocial intervention group, and 18 (13%) of 137 in the control group, reported adverse events. Three severe adverse events were reported. One patient in the control group died after hospital admission for drug injection-related sepsis; another was hospitalised after a head injury but later discharged. A patient in the psychosocial intervention group was hospitalised after a panic attack and later discharged. None of these severe adverse events was judged to be trial related.

Tutkimus, julkaisuvuosi Moore BA, Buono FD, Lloyd DP, Printz DMB, Fiellin DA, Barry DT. A randomized clinical trial of the Recovery Line among methadone treatment patients with ongoing illicit drug use. J Subst Abuse Treat. 2019 Feb;97:68–74.	
Maa, toimintaympäristö	USA, opioid treatment organization
Tutkimusasetelma	Randomized clinical efficacy trial
Harhan riski (JBI)	**JBI: 8/13** ***Following criteria increased the risk of bias:*** Q3: Were treatment groups similar at the baseline? Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q8: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed? Q9: Were participants analyzed in the groups to which they were randomized?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** 1) ≥18 years old, 2) currently receiving methadone treatment, 3) self-reported illicit drug use in the last 14 days or a positive urine screen for illicit drugs. **Exclusion criteria:** 1) current suicide or homicide risk, 2) met criteria for current DSM-IV psychotic or bipolar disorder, 3) did not have access to a phone with text messaging, 4) unable to read or understand English, 5) unable to complete the study because of

	anticipated incarceration or move, or 6) medical complications that would interfere with participation.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N=82 methadone treatment patients with continued illicit drug use • Intervention group n = 40 / control group n = 42 Opioid dependence, years, mean (SD) • Intervention group 14.0 (8.5) / control group 15.9 (11.8) Age, years, mean, (SD) • 43.6 (10.3) / 41.2 (11.4) Male, % (n) • 60% (24) / 60% (25) Opioid dependence, years, mean (SD) • 14.0 (8.5) / 15.9 (11.8) Prescription drug use, % (n) • 0% (0) / 12% (5) History intravenous drug use, % (n) • 45% (18) / 54% (23) Days of opioid use, mean (SD) • 8.9 (9.9) / 9.4 (9.6) Days of cocaine use, mean (SD) • 9.8 (10.9) / 6.3 (8.7) Months of current methadone maintenance treatment, mean (SD) • 37.0 (54.8) / 21.0 (30.1) Number of prior drug treatments, mean (SD) • 6.8 (5.8) / 4.7 (4.6) Number of prior methadone maintenance treatments, mean (SD) • 2.0 (1.3) // 2.5(2.6) Beck Depression Inventory-Short Form (BDI-SF), mean (SD) • 13.9 (7.6) / 10.1 (6.4)
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Recovery Line + treatment as usual** The Recovery Line (RL) is a password-protected, automated, computer-based, Interactive Voice Response (IVR) system providing Cognitive Behavioral Therapy (CBT) based modules. The line was intended to be used by patients within their own environment to provide immediate assistance, training, and support for improved coping. Components include common substance use disorder CBT modules on self-monitoring, coping with urges and cravings, understanding patterns, managing stress, and motivation/goals. Each component had learning and activities sections. The learning sections provided didactic explanations of the component and related concepts (e.g., triggers, craving, distraction, coping, etc.). The activities section provided direct guidance in successful use of the component (e.g., guided urge surfing, guided visualization, role-play examples of drug refusal, examples of distraction activities, etc.). Patients assigned to the RL + TAU condition received 24-hour access, technical assistance, and a same-day 30-minute orientation to the system upon completion of intake. Positively framed reminder text messages were sent to the patients based on pre-identified call window established with the research assistants during orientation.

Interventioon sitoutuminen	See results
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Treatment as usual** In addition to daily provision of methadone, the clinic offered a wide array of services, including open access therapeutic groups covering a range of topics such as introduction to methadone, weekend planning, overdose planning, and spirituality. During the time of the study, patients were required to attend one group session per month and encouraged to attend others.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes** • Days per month of self-reported illicit drug abstinence (heroin, nonprescribed opioids, cocaine, non-prescribed benzodiazepines or other sedatives, amphetamines, marijuana, hallucinogens, or inhalants; Addiction Severity Index -Lite (ASI-Lite)) • Percent of urine screens negative for illicit drugs **Secondary outcomes** • Retention in methadone treatment • Coping skills efficacy (Effectiveness of Coping Behaviors Inventory (ECBI)) • Self-reported attendance at clinic-based individual and group-based substance abuse counseling, and self-help groups (modified Treatment Services Review (TSR))
Seuranta-aika ja mittauspisteet	Baseline, after the 12-week intervention Follow-up: months 1, 2, 3
Tutkimuksen keskeyttäneet (n-määrät, syyt)	TAU n = 4 RL + TAU n = 3
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Self-reported abstinence** For the general linear model examining days of self-reported illicit drug abstinence there was a significant interaction of treatment condition over time, F (3, 202.47) = 2.67, p = 0.049. Follow-up univariate tests indicated that the RL + TAU differed significantly over the four time-points, F (3, 201.47) = 3.41, p = 0.02, while the TAU condition did not, F (3, 200.25) = 0.41, p = .75. For the RL + TAU condition, days of abstinence were higher than baseline at Month 1 (p = .003, d = 0.44) and 2 (p = .03, d = 0.39), but not at Month 3 (p = .07, d = 0.34). **Urinalysis data** The percent of urine screens negative for illicit drugs was low (M = 16.7, SD = 24.0) and did not differ by assigned condition, t (80) = 0.02, p = 0.98 (RL + TAU; M = 16.7, SD = 25.6: TAU: M = 16.8, SD = 23.0). Evaluation of urinalysis data examining alternative assumptions of the urine screen results, including missing left as missing, imputation of last value carried forward, and use of general estimating equations showed the same pattern of null findings. **Retention in methadone treatment** Retention in methadone treatment was high (94%, n = 77) and did not differ by assigned condition, X2 (1) = 0.27, p = 0.60. We computed the percent of days of methadone

	medication adherence based on administrative data (including approved take home doses). The comparison between assigned condition approached significance, t (63.4) = 1.90, p = 0.06, such that patients in TAU (M = 93.0, SD = 11.9) had marginally higher adherence than those assigned to RL + TAU (M = 86.1, SD = 19.7). **Coping skills** ECBI scores did not differ by treatment condition (p=0.19), or over time (p=0.70), nor was the interaction significant, F (3, 205.68) = 1.36, p=0.26. **Treatment and self-help group adherence** The number of substance use disorder treatment and self-help group sessions reported during the 12- week treatment phase was greater for patients in the RL + TAU (M = 9.7, SD = 17.0) than those assigned to TAU (M = 5.1, SD = 8.8), F(1, 59.1) = 4.14, p = 0.047.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	There were only 12 unanticipated adverse events (7 for RL+TAU and 5 for TAU). One participant in TAU was removed from the study due to medical issues. None of the events were related to the intervention or study procedures.

Tutkimus, julkaisuvuosi Oveisi S, Stein LAR, Babaeepour E, Araban M. The impact of motivational interviewing on relapse to substance use among women in Iran: a randomized clinical trial. BMC Psychiatry. 2020 Dec;20(1):157.	
Maa, toimintaympäristö	Iran, a drug treatment center
Tutkimusasetelma	Randomized clinical trial
Harhan riski (JBI)	**JBI: 9/13** ***Following criteria increased the risk of bias:*** Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment? Q8: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Women receiving substance intervention at a treatment site. Being fluent in Farsi (the Iranian official language), not having any chronic physical health disorder and not being pregnant. Healthy volunteers were accepted.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 60 women ages 15–49 years old receiving substance intervention at a treatment site in Qazvin (Iran) in 2017 • Intervention n = 30 / Control group n = 30 Age, years, mean (SD) • intervention 30.93 (7.47) / control group 30.90 (7.76) Years of addiction, mean (SD) • 6.90 (7.83) / 6.49 (7.37) Daily use • Heroin: 76 % / 60 % • Opium: 50 % / 53,3 %

	• Methamphetamines: 93% / 96,6 % • Other drugs: 63 % / 66,6 % Rehabilitation experience, mean (SD) • Yes: 23 (76.7) / 18 (60) • No: 7 (23.3) / 12 (40) Addiction among family members, mean (SD) • Yes: 26 (86.7) / 25 (83.3) • No: 4 (13.3) / 5 (16.7)
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Motivational interviewing (MI)** MI sessions were based on, “Group treatment for substance abuse: A stages-of-change therapy manual”, which has been translated to Farsi. Consistent with MI, sessions incorporated affirmations, open questions, reflections and selective summary to ellicit desire, ability, reason, need and commitment to change. Interventionists met women where they were in their desire to change (e.g., precontemplation, making changes, etc); utilized decisional balance (pros/cons of change) to enhance interest in change; assisted women to enhance self-efficacy for change (“what about you makes you think you could make a change if you decided?”); and examined tempting situations to assist them in problemsolving risky situations. Providers led the sessions for attendees, and those who offer MI sessions did not offer standard care drug treatment sessions. Experimental intervention consisted of group-based MI sessions held for eight 60-min sessions. Sessions occurred over a 1-month period, twice weekly.
Interventioon sitoutuminen	-
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Standard care** Standard care generally did not involve medication assisted treatment for substance use. SC included weekly doctor visits and twice a week sessions guided by a non-profit organization, “Addicts Anonymous”. In addition, 4 sessions were delivered by a psychologist covering general psychoeducation on drugs, and basic behavioral techniques including drug-refusal skills
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcome** Relapse (Relapse Prediction Scale (RPS)) • Probability of substance abuse • Desire for substance abuse
Seuranta-aika ja mittauspisteet	Baseline, 2-months follow-up
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Relapse** The results reflect the effectiveness of MI (between groups P > 0.001 for both comparisons). Probability of substance abuse, mean (SD): • Intervention group: before 3.33 (0.67), after 0.60 (0.41) • Control group: before 3.27 (0.34), after 2.91 (0.32) Desire for substance abuse, mean (SD): • Intervention group: before 3.17 (0.60), after 0.58 (0.23) • Control group: before 3.52 (1.06), after 3.05 (0.41)
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Price CJ, Thompson EA, Crowell SE, Pike K, Cheng SC, Parent S, Hooven C. Immediate effects of interoceptive awareness training through Mindful Awareness in Body-oriented Therapy (MABT) for women in substance use disorder treatment. Subst Abuse. 2019 Jan 2;40(1):102–15. Price CJ, Thompson EA, Crowell S, Pike K. Longitudinal effects of interoceptive awareness training through mindful awareness in body-oriented therapy (MABT) as an adjunct to women's substance use disorder treatment: A randomized controlled trial. Drug Alcohol Depend. 2019 May;198:140–9.	
Maa, toimintaympäristö	USA, clinics(* offering outpatient, abstinent-based SUD programs **)The clinics offered outpatient, abstinent-based SUD programs, with IOP as well as less intensive (i.e., step-down) continuing care programs for individuals diagnosed with chemical dependency and seeking treatment. The program complies with the requirements of the Washington State Code, which regulates chemical dependency treatment, including an admission assessment, development of an individual treatment plan, and recovery-based education for SUD*.
Tutkimusasetelma	3-group repeated measures, randomized clinical trial
Harhan riski (JBI)	**JBI 10/13** **Following criteria increased the risk of bias:** Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** (1) female; (2) enrolled intensive outpatient program (IOP); (3) agreed to forgo (nonstudy) manual therapies (e.g., massage) and mind-body therapies (e.g., mindfulness meditation) for 3 months (baseline to post-test); (4) willing to sign release for access to electronic medical records; (5) fluent in English; and (6) able to attend MABT sessions. **Exclusion criteria** (1) untreated psychotic diagnosis or symptoms; (2) unwilling or unable to remain in treatment for the duration of the trial (e.g., planned relocation, pending incarceration, upcoming surgical procedures); (3) cognitive impairment based on an informed consent assessment of demonstrated comprehension difficulty during consent; or (4) currently pregnant.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 217 women diagnosed with chemical dependency and enrolled intensive outpatient program • Mindful Awareness in Body-oriented Therapy n = 93, Women's health education n = 56, treatment as usual n = 68 Age: • range 22 - 61 years • median age 35

	The primary substances for which individuals had sought treatment: • stimulants (45%) • alcohol (39%) • narcotics (24%) • marijuana (8%) • other opiates or analgesics (6%) • 22% reported using more than 1 primary drug The majority (70%) had previously participated in some form of substance use disorder treatment.
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Mindful Awareness in Body-oriented Therapy (MABT):** The intervention involves 90-minute weekly sessions delivered individually over approximately 8–10 weeks. The protocol has 3 distinct stages for teaching interoceptive awareness and take-home skills. The stages provide an incremental approach to facilitate learning the interoceptive awareness components of Stage 1: identifying body sensations (body literacy); Stage 2: learning and developing strategies for interoceptive awareness; and Stage 3: developing the capacity to sustain interoceptive awareness as a mindful process to facilitate appraisal of interoceptive experiences. Touch is used to facilitate the participant's ability to focus mindful attention to the body (vs. having attention wander, for example).
Interventioon sitoutuminen	Examination of adherence to IOP substance use treatment showed that approximately 73% of all study participants completed the IOP program. There was no difference in IOP adherence among the three study groups. Approximately 84% (n = 156) of the full sample continued some form of outpatient treatment after the initial IOP program, either in continuing care (n = 135) or by re-enrollment in IOP (n = 21); 44% (n = 82) completed both IOP and continuing care programs. There were no differences between study groups in either the number who continued in some form of treatment post IOP or completed the continuing care program. At 12 months, about 11% of all study participants (n = 21) were still engaged in outpatient treatment.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Women's health education (WHE)** A manualized protocol for WHE was developed for this study, based on a similar attention-control intervention used in women's SUD treatment studies. Individual delivery involving eight 90-minute weekly sessions to match the time and attention of the MABT intervention. WHE contained a health curriculum focused on topics such as understanding the female body, reproductive health, cardiovascular health, and sexually transmitted diseases. It was designed to provide equivalent therapeutic attention, expectancy of benefit, and an issue-oriented focus, but without theory-driven techniques (i.e., of MABT or any explicit focus on mindfulness or body awareness). **Treatment as usual at clinic:** A complete admission assessment, development of an individual treatment plan that involves group and individual counseling, education about alcohol and drug use, and participation in self-help groups (e.g., 12-step or equivalent) for SUD. IOP consisted of group sessions 2–3 times/week for 10–14

	weeks and individual counseling sessions once per month at minimum. Psychoeducation was the primary approach used.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**<u>Immediate effects (3 months)</u>** **Primary outcome:** • Interoceptive awareness and mindfulness skills (Multidimensional Assessment of Interoceptive Awareness (MAIA)) **Secondary outcomes:** • Emotion regulation (Difficulties in Emotion Regulation Scale (DERS), Respiratory Sinus Arrhythmia (RSA)) • Psychological distress (depression: Beck Depression Inventory-II (BDI-II)), trauma-related symptoms: PTSD Symptom Scale—Self Report (PSS-SR)) • Substance use (substance use/proportion of days used/relapse: The Timeline Follow Back (TLFB) interview, relapse; toxicology screen, electronic health records data) • Substance craving (Penn Alcohol Craving Scale (PACS)) • Intervention satisfaction (Project Match participant satisfaction questionnaire) **<u>Long term effects</u>** **Primary outcome:** - Days abstinent from substance use (TLFB) - Substance use relapse (TLFB, toxicology screen results, and electronic health record) **Secondary outcomes:** - Emotion regulation (physiological and self-report, The Difficulties in Emotion Regulation Scale (DERS) + respiratory sinus arrhythmia (RSA)) - Craving (Penn Alcohol Craving Scale (PACS)) - Psychological distress (PTSD Symptom Scale-Self Report (PSS-SR) + Beck Depression Inventory-II (BDI-II)) - Mindfulness (Freiburg Mindfulness Inventory (FMI)) - Interoceptive awareness (Multidimensional Assessment of Interoceptive Awareness (MAIA))
Seuranta-aika ja mittauspisteet	Baseline, 3 months (immediate) 6- and 12-month follow-up (long-term)
Tutkimuksen keskeyttäneet (n-määrät, syyt)	**3 months** Approximately 20% of the enrolled participants assigned to MABT and WHE withdrew from study participation without attending MABT or WHE sessions. One TAU participant withdrew during the study period. **Long-term** Study retention (i.e., loss to follow-up) among the three study groups varied, with TAU showing the least loss to follow-up, and interventions groups (MABT and WHE) showing similar rate of loss across assessment time-points. For the primary outcome of percent days abstinent, TAU loss to follow-up was approximately 7% at 6 months and 16% at 12 months; in contrast, MABT loss was about 18% at 6 months, 27% at 12 months; and WHE loss was 20% at 6 months, 28% at 12 months. Intervention retention, defined as attending > 75% of

	the intervention sessions (N = 146) was 64% for MABT and 70% WHE (= intervention-dose (ID) sample).
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Immediate effects (3 months):** <u>Interoceptive awareness and mindfulness skills</u> Although there were no statistically significant improvements in mindfulness skills based on the intention-to-treat (ITT) analysis, results from the intervention-dose (ID) analysis showed statistically significant improvements (x^2 = 12.90, P = .002) for MABT compared with both WHE and TAU. <u>Emotion regulation</u> Emotion regulation measured by the DERS revealed significant improvements for MABT compared with WHE and TAU (x^2 = 6.38, P = .04). There were no baseline differences in RSA among the study groups. In general results from the ITT analyses, MABT showed a consistent pattern of increased RSA from pre to post on tonic (resting) measures, and in response to all 3 tasks. In contrast, the TAU and WHE study groups showed either no change or reduced RSA from pre to post. <u>Psychological distress</u> In terms of MABT intervention effects on improvement in psychological distress, no significant differences were observed among the 3 study groups based on the ITT analyses for either trauma-related symptoms or depression symptoms. On the other hand, the intervention-dose analysis revealed significant reductions in depression (x^2 = 5.24, P = .02). <u>Substance use/abstinence, relapse</u> Although substance use was generally low during the intervention period, participants in both MABT and WHE compared with TAU showed significantly greater improvement in the proportion of days abstinent in both the ITT (x^2 = 8.71, P = .01) and the ID (x^2 = 14.20, P = .0008) analyses. On the other hand, the relapse measure revealed no significant group differences in the proportion of participants who relapsed during the intervention period. However, the relapse pattern across the 3 groups was somewhat consistent with the proportion of days abstinent findings, in that relapse was lowest (30%) among MABT participants compared with WHE (47%) and TAU (43%). <u>Substance craving</u> Significant improvements in substance craving by group was not observed in the ITT analysis, but the ID analysis showed near significant improvement in craving for MABT compared with the other study groups (x^2 = 5.88, P = .053). <u>Intervention satisfaction</u> Both MABT and WHE interventions were well received, with 94% of the participants in both groups indicating overall satisfaction. In response to the more specific question, “Overall, to what extent did the intervention meet your needs?” 72% of MABT and 63% of WHE participants endorsed highly positive ratings of “very much” or “extremely.” In addition, 25% of MABT and 20% of WHE participants endorsed moderate

	scale ratings of “somewhat” and “moderately.” The majority of MABT (83%) and WHE (77%) participants indicated interest in receiving the intervention again should they seek future treatment. **Long-term effects** <u>Days abstinent from substance use</u> For the ID sample, the longitudinal analysis indicated an intervention effect in which the three groups differed significantly ($\chi 2 = 6.95$; $p = .03$). In the focal between-group contrasts, MABT and WHE showed more abstinent days compared to TAU at 6 months (mean difference = 11.6 (95% CI: 2.2–21.0 and 10.6 (95% CI: .7–20.6 respectively). At 12 months, only MABT showed more days abstinent compared to TAU, with an adjusted mean difference of 22.4 (95% CI: 4.5–40.3). Notably, MABT improvements were maintained from 3 to 12 months, whereas TAU and WHE showed declines in abstinence days, particularly at 12 months. Results were similar for the ITT sample. The overall longitudinal effect approached significance ($\chi 2 = 5.90$; $p = 0.052$). This result reflected that subsequent to the observed change during the intervention period, relatively modest change occurred from 3 to 12 months for all groups. Specifically, for the ITT sample, the focal between-group findings showed significant improvement in percent days abstinent for MABT and WHE compared to TAU at 6 months with an adjusted mean difference of 11.3 (95% CI: 2.1–20.7), and for MABT compared to TAU at 12 months with an adjusted mean difference of 18.9 (95% CI: 0.5–37.2) with an effect size of .32 (Cohen’s d) for a sample size of 110 (MABT n = 54 vs. TAU n = 56). No group differences were observed for MABT vs. WHE in the percent of days abstinent at any assessment time-point. <u>Relapse</u> Fewer women in MABT vs. TAU relapsed over the assessments, although this difference was not statistically significant. No group differences were observed for MABT vs. WHE in the relapse at any assessment time-point. <u>Emotion regulation</u> Self-reported emotion dysregulation showed no significant longitudinal differences among the three groups in either the ID or ITT analyses. In contrast, for RSA, the overall longitudinal effects were significant for both the ID and ITT samples (Wald $\chi 2 = 68.96$ and 68.16, $p < .001$, respectively). For the ID sample, the focal analysis revealed a greater increase in RSA for MABT vs. TAU and WHE from baseline to 3 months (mean difference = 0.53, 95% CI: 0.36 – 0.70 and .57, CI: 0.38 - 0.77, respectively), for MABT vs. TAU at 6 months (mean difference = 0.29: 95% CI: 0.10 -0.47), and for MABT vs. TAU and WHE from baseline to 12 months (mean difference = 0.44, 95% CI: 0.25 - 0.64 and 0.72, CI: 0.48 - 0.95, respectively), with WHE also showing significantly lower RSA vs. TAU at 12 months. The ITT results were similar, with MABT showing significantly greater change in RSA vs. TAU and WHE at both 3 and 12 months.

	<u>Craving</u> For the ID sample, the overall longitudinal test indicated significant reductions in craving across the 12 months (χ2 = 13.7, p = .03), which was similar to the ITT sample results (χ2 = 12.7; p = .047). Focal analyses of group differences in change for the ID and ITT samples were also similar, both indicating significant improvement for MABT vs. TAU at 6 and 12 months. Craving was significantly less in the ID sample for MABT vs. TAU at 3 months (mean difference = -3.2; 95% CI: -0.7), at 6 months (mean difference = -5.5; 95% CI: −8.5 to −2.5) and 12-month follow-up (mean difference = -4.0; 95% CI: −7.4 to −0.5). No focal differences in craving were observed for MABT vs. WHE. <u>Psychological distress</u> The longitudinal tests of psychological distress (trauma and depression symptoms) revealed no significant differences among the three study groups from baseline to 12 months for either the ID or ITT samples. The ID focal analysis, however, showed significant reduction in depression symptoms for MABT vs. TAU (mean difference = -4.5; 95% CI: −8.3 to −0.7) and for WHE (mean difference = -5.6; 95% CI: −9.7 to −1.5) from baseline to 3 months. No group differences were observed at any time-point in the ITT analyses. <u>Mindfulness</u> For mindfulness skills, the overall longitudinal effect in the ID sample was statistically significant (18.14; p = .006). Focal between group comparisons for the ID sample revealed significant improvements in mindfulness skills in MABT vs. TAU and WHE from baseline to 3 months (mean difference = 4.9; 95% CI: 1.2–8.7 and 7.6; CI: 2.7–12.4, respectively), and from baseline to 6 months (mean difference = 5.0; 95% CI: 1.8–8.2 and 6.9; CI: 2.6–11.2, respectively). At 12 months, only MABT vs. WHE showed differences. In contrast, the ITT longitudinal analysis for mindfulness skills was not significant. Focal analysis of mindfulness skills showed greater change for MABT vs. TAU from baseline to 6-months (mean difference = 3.7; 95% CI: 0.7–4.7). <u>Interoceptive awareness</u> For interoceptive awareness skills, a significant overall longitudinal effect between groups was observed across time for the ID (43.77; p = < .001) and ITT samples (22.69; p = < .001). Between-group focal comparisons showed that MABT improved significantly compared to TAU and WHE from baseline to 3 months (mean difference = 0.8; 95% CI: 0.5–1.2 and 0.6; CI: 0.6–1.4, respectively), and from baseline to 6 months (mean difference = 0.4; CI: 0.1−0.8 and 0.8; CI: 0.4–1.1, respectively). The ITT sample results were similar, showing significant improvement for MABT vs. TAU and WHE at 3 and 6 months, but no differences between groups at 12 months.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	There were no serious adverse events (short-term evaluation).

Tutkimus, julkaisuvuosi Ray LA, Meredith LR, Kiluk BD, Walthers J, Carroll KM, Magill M. Combined Pharmacotherapy and Cognitive Behavioral Therapy for Adults With Alcohol or Substance Use Disorders: A Systematic Review and Meta-analysis. JAMA Netw Open. 2020 Jun 19;3(6):e208279.	
Maa, toimintaympäristö	Most studies (21 [70%]) were published in the United States. Of studies conducted outside the United States, the following countries were represented: Germany, Sweden, the Netherlands, Switzerland, Finland, China, and Australia. Recruitment contexts were primarily specialty substance use or mental health clinics (20 [68%]), medical settings (5 [16%]), and community advertising (5 [16%]).
Tutkimusasetelma	Systematic Review and Meta-analysis
Harhan riski (JBI)	**JBI: 11/11** ***Following criteria increased the risk of bias:*** - ***The assessment of the risk of bias addressed in study:*** Study-level risk-of-bias assessment showed 18 studies (60%) were low risk.
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Studies were included if they targeted adult populations (aged 18 years) meeting criteria for AUD or other drug use disorder (ie, Diagnostic and Statistical Manual of Mental Disorders, Third Edition Revised through Fifth Edition) or problematic use. Treatment must have been identified as either cognitive behavioral or relapse prevention. Concomitant treatment with pharmacotherapy for AUD/SUD was required for inclusion. Studies of CBT delivered in either individual or group format were included.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 30 AUD/SUD randomized clinical trials Sample sizes • median sample size 82 participants • range of 30 to 917 Primary substance targeted: • alcohol (15 [50%]) • cocaine (7 [23%]) • opioids (6 [20%]) Participant age, mean (SD): • 39 (6) years Sex, mean (SD): • 28% (12%) female participants The severity of the participants' AUD/SUD was mainly dependence.
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Combined Pharmacotherapy and Cognitive Behavioral Therapy (CBT)** The CBT portion of the combined interventions was 73% individual and 26% group delivered, and 1 study used a mixture of individual and group sessions. The mean number of planned sessions was 16 (range, 4-48). The severity of SUD was mainly dependence.

	CBT plus pharmacotherapy vs. usual care plus pharmacotherapy: <u>Post treatment</u> • N = 8 RCTs • **substance used**: alcohol (n = 4 RCTs, n = 419 participants), cocaine (n = 2 RCTs, n = 98 participants), alcohol/cocaine (n = 2 RCTs, n = 93) • **study treatment**: CBT (n = 4 RCTs, 9 – 24 treatment sessions), relapse prevention (n = 4 RCTs, 12 – 20 treatment sessions) • **contrast treatment**: supportive therapy (n = 2 RCTs), clinical management (n = 2 RCTs), primary care management (n = 1 RCT), drug counseling (n = 2 RCTs), group counseling (n = 1 RCT) • **medication used**: naltrexone (n = 5 RCTs), desipramine hydrochloride (n = 1 RCT), disulfiram (n = 1 RCT), nefazodone (n = 1 RCT) • **outcomes**: days used (n = 4 RCTs), days/weeks abstinent (n = 4 RCTs), consumption amount (n = 3 RCTs), urine screen test result (n = 2 RCTs) <u>Follow-up</u> • N = 2 RCTs • **substance used**: alcohol (n = 2 RCTs, n = 184 participants) • **study treatment**: CBT (n = 1 RCT), cognitive coping skills (n = 1 RCT) • **contrast treatment**: supportive therapy (n = 1 RCT), group therapy (n = 1 RCT) • **medication used**: naltrexone (n = 1 RCT), nefazodone (n = 1 RCT) • **outcomes**: consumption amount (n = 1 RCT), days abstinent (n = 1 RCT) • **follow-up months**: 5–9 **CBT plus pharmacotherapy vs. specific therapy plus pharmacotherapy**: <u>Post treatment</u> • N = 11 RCTs • **substance used**: alcohol (n = 4 RCTs, n = 480 participants), cocaine (n = 3 RCTs, n = 215 participants), opioid (n = 2 RCTs, n = 180 participants), alcohol/cocaine (n = 1 RCT, n = 51), poly drug use (n = 1 RCT, 82 participants) • **study treatment**: CBT (n = 10 RCTs, 7 – 48 treatment sessions), broad-spectrum treatment (n = 1 RCTs, 12 treatment sessions) • **contrast treatment**: motivational enhancement therapy (n = 3 RCTs), 12-step facilitation (n = 1 RCT), interpersonal psychotherapy (n = 1 RCT), contingency management (n = 3 RCTs), BRENDA (n = 2 RCTs), cocaine collaborative individual drug counseling (n = 1 RCT) • **medication used**: naltrexone (n = 4 RCTs), disulfiram (n = 2 RCTs), acamprosate (n = 1 RCT), methadone (n = 3 RCTs), buprenorphine (n = 1 RCT) • **outcomes**: days/weeks abstinent (n = 4 RCTs), consumption amount (n = 2 RCTs), urine screen test result (n = 5 RCTs), days used (n = 2 RCTs)

	Follow-up • N = 6 RCTs • **substance used**: opioid (n = 2 RCTs, n = 180 participants), cocaine (n = 1 RCT, 50 participants), alcohol (n = 2 RCTs, n = 268 participants), polydrug use (n = 1 RCT, n = 50 participants) • **study treatment**: CBT (n = 5 RCTs), broad spectrum therapy (n = 1 RCT) • **contrast treatment**: contingency management (n = 2 RCTs), individual drug counseling (n = 2 RCTs), motivational enhancement (n = 2 RCTs) • **medication used**: buprenorphine (n = 1 RCT), methadone (n = 2 RCTs), acamprosate (n = 1 RCT), naltrexone (n = 1 RCT). multiple (n = 1 RCT) • **outcomes**: urine screen test result (n = 3 RCTs), days used (n = 2 RCTs), consumption amount (n = 1 RCT), percentage abstinent (n = 1 RCT) • **follow-up months**: 2–12 **CBT plus usual care plus pharmacotherapy vs. usual care plus pharmacotherapy:** Post treatment • N = 11 RCTs • **substance used**: alcohol (n = 3 RCTs, n = 1100 participants), cocaine (n = 4 RCTs, n = 240 participants), opioid (n = 3 RCTs, n = 417 participants) • **study treatment**: combined behavioral intervention plus medication management (n = 1 RCT, 20 treatment sessions), group CBT plus diacetylmorphine maintenance (n = 1 RCT, 12 treatment sessions), CBT plus medication management (n = 3 RCTs, 12 – 18 treatment sessions), behavioral self-control therapy plus brief behavioral compliance enhancement treatment (n = 1 RCT, 12 treatment sessions), CBT plus methadone maintenance treatment (n = 3 RCTs, 20–48 treatment sessions), CBT plus clinical management (n = 1 RCT, 12 treatment sessions), group relapse prevention plus case management (n = 1 RCT, 12 treatment sessions) • **contrast treatment**: medication management (n = 4 RCTs), diacetylmorphine maintenance (n = 1 RCT), brief behavioral compliance enhancement treatment (n = 1 RCT), methadone maintenance treatment (n = 3 RCTs), clinical management (n = 1 RCT), case management (n = 1 RCT) • **medication used**: acamprosate and/or naltrexone (n = 1 RCT), methylphenidate plus diacetylmorphine (n = 1 RCT), methadone (n = 4 RCTs), buprenorphine (n = 1 RCT), naltrexone (n = 3 RCTs), levodopa (n = 1 RCT) • **outcomes**: days used (n = 4 RCTs), urine screen test result (n = 6 RCTs), times used per day (n = 1 RCT) Follow-up • N = 8 RCTs • **substance used**: alcohol (n = 2 RCTs, n = 1026 participants), opioid (n = 4 RCTs, n = 415 participants), cocaine (n = 1 RCT, n = 60 participants), polydrug use (n = 1 RCT, n = 56 participants) • **study treatment**: combined behavioral intervention plus medication management (n = 1 RCT, 20 treatment

	sessions), CBT plus medication management (n = 2 RCTs, 16 – 20 treatment sessions), CBT plus physician management (n = 1 RCT, 12 treatment sessions), group CBT plus methadone maintenance treatment (n = 2 RCTs, 20–48 treatment sessions), integrated CBT plus standard care (n = 1 RCT, 12 treatment sessions), relapse prevention plus case management (n = 1 RCT, 12 treatment sessions) • **contrast treatment**: medication management (n = 3 RCTs), methadone maintenance treatment (n = 2 RCTs), physician management (n = 1 RCT), case management (n = 1 RCT), standards care (n = 1 RCT) • **medication used**: acamprosate and/or naltrexone (n = 2 RCTs), buprenorphine (n = 2 RCTs), methadone (n = 2 RCTs), naltrexone (n = 1 RCT), multiple (n = 1 RCT) • **outcomes**: days abstinent (n = 2 RCTs), consumption amount (n = 1 RCT), urine screen test result (n = 3 RCTs), time to first relapse (n = 1 RCT) • **follow-up months**: 3–18
Interventioon sitoutuminen	-
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	See intervention descriptions
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	See intervention descriptions
Seuranta-aika ja mittauspisteet	See intervention descriptions
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**CBT plus pharmacotherapy vs. usual care plus pharmacotherapy:** When CBT plus pharmacotherapy was compared with usual care plus pharmacotherapy, the effect for CBT on posttreatment frequency outcomes was small, homogeneous, and statistically significant (g=0.18 [95% CI, 0.01-0.35]; P = 0.04; τ^2 =0.00, Q > 0.05, I^2 = 0%), but only 1 study provided follow-up effect-size data (g=0.24 [95% CI, −0.15 to 0.62]). For quantity outcomes, effects were small to moderate, homogenous, and significant (g=0.28 [95% CI, 0.03-0.54]; P = 0.03; τ^2=0.03; Q > 0.05; I^2 = 31%), and only 2 studies provided follow-up effect-size data (g=0.50 [95% CI, 0.01-0.89] and g=2.00 [95% CI, 1.40-2.60], respectively). Among the studies in this subgroup, no evidence was found for influential studies or publication bias. **CBT plus pharmacotherapy vs. specific therapy plus pharmacotherapy**: Studies that compared CBT with another specific therapy suggested no unique benefit of adding CBT to pharmacotherapy compared with other evidence-based modalities. For posttreatment frequency outcomes, effects were homogeneous and nonsignificant (g=0.05 [95% CI, −0.13 to 0.23]; P = 0.58; τ^2=0.03; Q > 0.05; I^2 = 35%). A similar pattern of frequency results was found at follow-up (g=−0.02 [95% CI, −0.29 to 0.26]; P = 0.89; τ^2=0.03; Q > 0.05; I^2 = 11%). Quantity posttreatment outcomes were also nonsignificant but statistically heterogeneous (g=0.09 [95% CI, −0.42 to 0.60]; P = 0.74; τ^2=0.23; Q < 0.05; I^2 = 84%). At follow-up, only one study reported quantity outcomes (g=0.34 [95% CI, −0.29 to

	0.96]). Sensitivity analyses showed no influential studies or evidence of publication bias.
	
	CBT plus usual care plus pharmacotherapy vs. usual care plus pharmacotherapy:
	The final subgroup of studies examined CBT as an add-on to combined usual care and pharmacotherapy and suggested no clear added benefit of CBT in this context. Frequency results were heterogeneous and nonsignificant after treatment (g=0.06 [95% CI, −0.22 to 0.34]; P = 0.67; τ^2=0.13; Q < 0.05; I^2 = 76%) and at follow-up (g=0.17 [95% CI, −0.05 to 0.38]; P = 0.13; τ^2=0.04; Q > 0.05; I^2 = 51%). Only 3 studies (all AUD trials) provided quantity effect-size data, and these studies showed very different measures of effect. At follow-up, the effect size for quantity outcomes in one study was g=0.04 (95% CI, −0.19 to 0.26) for collapsed pharmacotherapy, medication management, and combined behavioral intervention conditions vs pharmacotherapy and medication management only conditions. Sensitivity analyses showed no evidence of publication bias but showed 2 influential studies.
	
	Primary drug target as a moderator of between-study heterogeneity:
	CBT combined with pharmacotherapy for AUD/SUD frequency and quantity outcomes after treatment and at follow-up, most effect estimates showed little to no statistical heterogeneity. The exception was CBT combined with pharmacotherapy in contrast to another specific therapy combined with pharmacotherapy in relation to posttreatment quantity outcomes (Q < 0.05; I^2 = 84%) and CBT as an addition to combined usual care and pharmacotherapy in relation to posttreatment (Q < 0.05; I_2 = 76%) and follow-up (Q > 0.05; I^2 = 51%) frequency outcomes. Given that the sample of studies targeted different substances, each primary drug was examined as a subgroup moderator, and residual I^2 values were reported. These analyses show that pooled effect-size direction and/or magnitude varied by primary drug outcome in this review. However, residual heterogeneity was present in 3 of the 8 subgroups, suggesting that this a priori moderator was an informative variable in this meta-analysis but did not explain all the systematic variance between studies. As a result, random-effects estimates are a particularly appropriate metric for this review.
	
	CBT plus pharmacotherapy vs. specific therapy plus pharmacotherapy:
	• post-treatment quantity outcomes g=0.09 (standard error (SE) 0.26), n = 4 RCTs
	  ○ alcohol studies (n = 3) g=0.31 (SE 0.27)
	  ○ cocaine and stimulant studies (n = 1) g= -0.61 (SE 0.21)
	
	CBT plus usual care plus pharmacotherapy vs. usual care plus pharmacotherapy:
	• post-treatment frequency outcomes g=0.06 (SE 0.14), n = 9 RCTs
	  ○ alcohol studies (n = 2) g=0.28 (SE 0.36)
	  ○ opioid studies (n = 4) g=0.14 (SE 0.09)
	  ○ cocaine or stimulant studies (n = 3) g= -0.32 (SE 0.67)

	• follow-up frequency outcomes g=0.17 (SE 0.11), n = 7 RCTs
	  ○ alcohol studies (n = 2) g=0.02 (SE 0.10)
	  ○ opioid studies (n = 4) g=0.02 (SE 0.01)
	  ○ cocaine or stimulant studies (n = 1) g=0.76 (SE 0.30)

Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Rezapour T, Hatami J, Farhoudian A, Sofuoglu M, Noroozi A, Daneshmand R, Samiei A, Ekhtiari H. Cognitive rehabilitation for individuals with opioid use disorder: A randomized controlled trial. Neuropsychol Rehabil. 2019 Sep 14;29(8):1273–89.	
Maa, toimintaympäristö	Iran, a court-mandated methadone maintenance treatment residential centre
Tutkimusasetelma	A randomised, single blind, parallel-group controlled trial
Harhan riski (JBI)	**JBI: 8/13** ***Following criteria increased the risk of bias:*** Q1: Was true randomization used for assignment of participants to treatment groups? Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q9: Were participants analyzed in the groups to which they were randomized? Q13: Was the trial design appropriate, and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Subjects were included in this study if they were 20–40 years of age, fulfilled DSM-V criteria for opioid use disorder and were able to speak and write Farsi sufficiently. Recruited from a court-mandated methadone maintenance treatment residential center. **Exclusion criteria:** Subjects were excluded from study participation if they had other major psychiatric (e.g., schizophrenia, bipolar disorder or major depression) or neurological disorders, had severe opioid withdrawal symptoms (as defined by Objective Opioid Withdrawal Scale > 6) at the end of the second week after admission (before entering the trial) or reported a recent history of suicide attempts.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 117 participants with opioid use disorder in methadone maintenance treatment • intervention group n = 57, control group n = 60 Age, years, mean (SD): • intervention group: 32,26 (SD 5,68) / control group: 32,30 (SD 5,37) Opioid use duration: • 18,51 years (4,74) / 19,18 years (4,62)

	Substance used: • methamphetamine n = 34 / n = 40 • alcohol n = 16 / n = 14 • sedative drugs n = 14 / n = 16
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Cognitive rehabilitation treatment (CRT) + usual care** CRT was conducted in a group setting, 1-hour session two times per week over 8 weeks. CRT was applied with the use of a recently developed NEuroCOgnitiveREhabilitation for Disease of Addiction programme (NECOREDA). NECOREDA is a paper-and-pencil training of cognitive functions that are commonly affected by SUDs: attention, memory, calculation, visuospatial process, verbal skills and reasoning. In addition to cognitive training, NECOREDA focuses on psychoeducational aspects of cognitive rehabilitation, including: metacognitive education, compensatory and lifestyle training. Usual clinical care included methadone maintenance treatment and counselling.
Interventioon sitoutuminen	Retention rate for both CRT (n = 23) and control groups (n = 28) from admission to 3- month follow-up were equally high and were not significantly different (39% in CRT and 47% in control, p = 0.51). Although, it should be noted that the high rate of retention over the 2-month intervention (2 subjects from each group) indicates the feasibility of the CRT intervention in court-based residential MMT centres.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Group sessions (painting) + usual care** Subjects in the control group received 16 1-hour group sessions plus the usual clinical care for 2 months. Painting in a group setting was chosen as a control intervention to minimise the plausible confounding effects of social interaction of the CRT, which was given in group settings.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes:** **Cognitive functioning** • Psychomotor speed and attention (Trial Making Test (TMT)) • Working memory (Digit Span Test (DST)) • Executive functions (Stroop Colour-Word Test) • Verbal fluency (Verbal Fluency Test (VFT)) • Immediate and delayed memory (Ray Auditory Verbal Learning Test (RAVLT)) • Psychomotor performance (Digit Symbol Substitution Test) **Secondary outcomes:** • Drug use (amphetamine- and morphine-positive urine test results) • Treatment retention (regular attendance in the clinic)
Seuranta-aika ja mittauspisteet	1-, 3- and 6-month follow-up time points
Tutkimuksen keskeyttäneet (n-määrät, syyt)	Final assessment: CRT n = 1 and control n = 0 declined to complete the intervention

	Drop-outs 1-month follow-up: CRT n = 4 and control n = 7 3 months follow-up: CRT n = 28 and control n = 23 6 months follow-up: CRT n = 13 and control n = 15
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Cognitive functioning** 3-month follow-up: There was a significant main effect of CRT on learning (F(1,49) = 9.77, p = 0.01, mean difference = 1.24, %95CI = [0.44,2.04]), switching (F(1,49) = 6.38, p = 0.01, mean difference = 0.71, 95% CI = [0.14,1.28]), processing speed (F(1, 49) = 5.96, p = 0.01, mean difference = 0.66, 95% CI = [0.11,1.21]), working memory (F(1,49) = 21.46, p = 0.01, mean difference = 1.83, 95% CI = [1.03,2.63]) and memory span (F(1,49) = 5.61, p = 0.02, mean difference = 0.18, 95% CI = [0.02,0.34]). Analysis revealed the largest effect size in working memory (0.30) and medium to large in learning (0.16), switching (0.11) and similarly in processing speed and memory span (0.10). For learning-related tasks, we found a significant effect of the time and intervention interaction. 6-month follow-up: Results showed no significant changes between 3- and 6-month follow-up time points for each group in terms of cognitive measures. **Drug use** 3-month follow-up: Opiate-positive urines, out of 12 samples collected over 3 months (weekly), the rate was lower in the CRT group (2.35 ± 2.70) compared to the control group (3.51 ± 3.09) ([T = -2.01, p = 0.04, mean difference = -1.15, 95% CI = [-2.3, -0.01]). Although no difference was found in stimulant-positive urines in the whole sample, when only subjects with a history of methamphetamine use were compared, the CRT (n = 34) group had lower rates of amphetamine-positive urines than the control (n = 40) group, (CRT group = 1.53 ± 1.88, control group = 4.61 ± 3.49) [T = −4.28, p ≤ 0.01, mean difference = -3.07, 95% CI = [-4.41, -1.63]). Analyses revealed the small to medium effect size in opiate use (d = 0.41) and large effect size in amphetamine use (d = 1.24). 6-month follow-up: From 12 urine tests collected between 3- and 6-month follow-up, subjects in the CRT group had significantly lower rates of opiate use (0.35 ± 0.57) compared to the control group (2.78 ± 2.6) [T = -4.28, p = 0.001, mean difference = -2.43, 95% CI = [-3.5,-1.2]. Similar to what we had found at 1- and 3-month follow-up time points, subjects with a positive history of methamphetamine use in the CRT group had significantly lower rates of stimulant use than subjects in the control group (CRT group = 0.38 ± 0.51, control group = 2.787 ± 2.35) [T = -3.57, p = 0.002, mean difference = -3.04, 95% CI = [-3.76,-1.011]). **Treatment retention** No significant group differences were observed for the mean number of missed visits (CRT group = 3.74 ± 4.74, control group = 3.57 ± 4.74 sessions) [T = 0.19, p = .84].
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Schäfer I, Lotzin A, Hiller P, Sehner S, Driessen M, Hillemacher T, Schäfer M, Scherbaum N, Schneider B, Grundmann J. A multisite randomized controlled trial of Seeking Safety vs. Relapse Prevention Training for women with co-occurring posttraumatic stress disorder and substance use disorders. Eur J Psychotraumatology. 2019 Dec 31;10(1):1577092.	
Maa, toimintaympäristö	Germany, substance abuse treatment departments
Tutkimusasetelma	A multisite randomized controlled design
Harhan riski (JBI)	**JBI: 10/13** ***Following criteria increased the risk of bias:*** Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q8: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Female sex, age 18–65, subthreshold PTSD (i.e. criterion A, B and either C or D) or full PTSD and a substance use disorder with last substance use within the previous 12 months, both according to DSM-IV criteria. **Exclusion criteria:** Current psychosis, severe cognitive impairment and intravenous drug use within four weeks before start of study participation. Patients with suicide or violence ideation, bipolar disorder, homelessness or criminal justice involvement.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 343 women with co-occurring posttraumatic stress disorder and substance use disorders • Relapse Prevention Training group n = 115, Seeking Safety group n = 111, treatment as usual group n = 117 Age, years, mean (SD) • 40.9 (11.4) Substance use disorder: • Alcohol: n = 293 (85.4 %) • Sedatives: n = 106 (31.2 %) • Cannabis: n = 165 (48.5 %) • Stimulants: n = 96 (28.2 %) • Opiates: n = 73 (21.3 %) • Cocaine: n = 97 (28.5 %) Substance use disorder severity: • at least one substance dependence diagnosis: 94.5 % • met substance abuse criteria: 5.5 % Subthreshold PTSD: • n = 85 (24.8 %) Major depression: • n = 153 (44.9 %) Anxiety disorder: • n = 221 (64.4 %)

INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Relapse Prevention Training (RPT) plus treatment ad usual (TAU):** Relapse Prevention Training is a manualized cognitive-behavioural group training. It teaches skills to prevent substance relapse and to manage a relapse once it has happened. Each session covers a different module and is highly structured. Of the 15 'S. T.A.R.' modules, 14 were used in this trial, plus we added an individual introductory session and a termination session so as to be comparable to Seeking Safety. **Seeking Safety (SeSa) plus TAU:** Seeking Safety is a manualized, integrated, present-focused coping skills model to address PTSD and SUD at the same time, by the same therapist. Each topic provides a coping skill relevant to both disorders. For this study, 16 of the 25 Seeking Safety topics were selected in consultation with the treatment developer: introduction/case-management, detaching from emotional pain (grounding), safety, when substances control you, red and green flags, asking for help, setting boundaries in relationships, self-nurturing, PTSD: taking back your power, commitment, recovery thinking, coping with triggers, honesty, integrating the split self, healing from anger and termination. All were delivered in group modality except the first and last topics, which were individual. Participants in Seeking Safety and RPT were offered 16 sessions in total: one individual introductory session with the study therapist before starting the group modality, then 14 weekly group sessions, each 90 minutes, followed by an individual termination session. Groups consisted of up to eight participants. Remuneration for each study assessment was €20 to €50 depending on the time point (baseline, post-treatment and follow-up assessments).
Interventioon sitoutuminen	In the two treatment conditions, 15.3% (Seeking Safety) and 13.9% (RPT) of the participants did not start treatment after randomization. All other participants randomized to one of the treatments attended at least the introductory session. The mean number of sessions attended was 6.6 (SD = 5.1, range = 0–16) in Seeking Safety and 6.1 (SD = 4.9, range = 0–16) in RPT, with no significant difference between them (41.3% vs. 38.1% of available sessions; OR = 1.06, p = .671, unadjusted beta-binomial regression model). The proportion of participants attending at least eight of the 14 group sessions ('minimum dose') was 36.9% (n = 41) in Seeking Safety and 28.7% (n = 33) in RPT ($\chi 2$ (1) = 1.74, p = .187).
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Treatment as usual** TAU meant that participants irrespective of treatment condition were free to engage in any additional treatment for SUD, PTSD or other problems throughout study participation. Participants in the TAU control group did not receive any study intervention (i.e. Seeking Safety or RPT). In the three study conditions, a significant proportion of participants reported additional service use (at least one

	session or day in treatment). From baseline to posttreatment, this included outpatient psychotherapy (SeSa 53.6%, RPT 62.7%, TAU 47.8%), other outpatient treatment (SeSa 50.7%, RPT 58.2%, TAU 56.7%) and dayclinic or inpatient treatment (SeSa 10.1%, RPT 20.9%, TAU 18.9%). Between end of treatment and the three months follow-up these rates were 44.3% (SeSa), 58.0% (RPT) and 48.9% (TAU) for outpatient psychotherapy, 57.4% (SeSa), 65.2% (RPT) and 55.4% (TAU) for other outpatient treatment and 24.6% (SeSa), 15.9% (RPT) and 17.4% (TAU) for day-clinic or inpatient treatment. Finally, between the three-month follow-up and the six-month follow-up, participants also reported use of outpatient psychotherapy (SeSa 48.6%, RPT 61.8%, TAU 52.3%), other outpatient treatment (SeSa 38.6%, RPT 55.9%, TAU 61.4%) and day-clinic or inpatient treatment (SeSa 14.3%, RPT 20.6%, TAU 20.5%). No significant differences were observed between the three study conditions, with the exception of the proportion of participants using other outpatient treatment (e.g. psychiatric treatment, self-help groups or occupational therapy) between the two follow-ups (p = 0.014).
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes:** **Posttraumatic stress disorder** • PTSD symptom severity (PTSD Symptom Scale Interview (PSS-I)) • PTSD severity (self-reported, Posttraumatic Diagnostic Scale (PDS)) **Secondary outcomes:** • Substance use (number of days without substance use; Addiction Severity Index-lite) • Depression (Beck Depression Inventory II, BDI-II) • Emotion dysregulation (Difficulties in Emotion Regulation Scale)
Seuranta-aika ja mittauspisteet	Baseline, post-treatment, 3- and 6-months follow-up
Tutkimuksen keskeyttäneet (n-määrät, syyt)	**Lost to follow-up** <u>Seeking safety + TAU:</u> • Post-treatment n = 42 • Three-month post-treatment n= 50 • Six-month post-treatment n = 41 <u>RPT + TAU</u>: • Post-treatment n = 48 • Three-month post-treatment n= 46 • Six-month post-treatment n = 47 <u>TAU:</u> • Post-treatment n= 27 • Three-month post-treatment n = 25 • Six-month post-treatment n = 29
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Posttraumatic stress disorder** Statistical analyses showed no significant interaction effects of time by group on interviewer-rated (PSS-I) or self-rated (PDS) PTSD severity. There was a significant main effect of

	time on PSS-I PTSD severity scores (p = 0.001), but no significant effect of group (p = 0.748), indicating that baseline-adjusted PTSD severity scores decreased comparably in the three conditions (post-treatment–three-month follow-up = 1.38, 95% CI 0.15 to 2.61, p = 0.028; three-month follow-up–six-month follow-up = 0.89, 95% CI −0.34 to 2.12, p = .155). Likewise, baseline adjusted PDS severity scores changed significantly over time (p = 0.006), but there was no significant group effect (p = 0.153). **Substance use** There were no significant time by group interaction effects on any of the substance use outcomes. The model showed a significant group effect on the number of days without substance use (p = 0.019). No significant main effect of time (p = .154) on number of days without substance use was observed. Contrasts revealed that, adjusting for baseline level, participants in RPT had significantly more substance-free days than participants in the TAU group (RPT – TAU = 3.53, 95% CI 1.08 to 5.98, p = 0.005), with a small effect size. Differences between Seeking Safety and TAU and between Seeking Safety and RPT were not significant (SeSa – TAU = 1.91, 95% CI −0.54 to 4.36, p = 0.126; SeSa – RPT = −1.62, 95% CI −4.22 to 0.98, p = 0.223). Regarding ASI-lite drug use severity scores, there were no significant effects of time (p = .241) or group (p = .479). **Depression, emotion regulation** Neither the BDI-II scores nor the DERS scores were significantly impacted by an interactive effect of time by group. There were significant main effects of time (p = .005) and group (p = .018) on BDI-II scores. Contrasts revealed that improvements in depressive symptoms were significantly greater in Seeking Safety as compared to TAU (SeSa – TAU = −4.10, 95% CI −6.91 to −1.29, p = .004) and, at a trend level, greater than in RPT (SeSa – RPT = −2.68, 95% CI −5.67 to 0.31, p = .079). RPT and TAU did not differ significantly on BDI-II scores (RPT – TAU = −1.42, 95% CI −4.21 to 1.38, p = .321). DERS emotion dysregulation scores were significantly predicted by time (p = .040), with decreasing scores over time, and group (p = .018). Contrasts showed that the Seeking Safety group demonstrated significantly lower baseline-adjusted DERS scores than the TAU group (SeSa – TAU = −6.86, 95% CI −11.80 to −1.91, p = .007). There was a trend towards lower DERS scores in RPT than in TAU, and there was no significant difference between SeSa and RPT (RPT – TAU = −4.86, 95% CI −9.73 to 0.01, p = .050; SeSa – RPT = −2.00, 95% CI −7.21 to 3.22, p = .453). All significant group differences in BDI-II and DERS scores had small effect sizes.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	In 2929 person months (i.e. one month of one person's trial participation) a total of 122 severe adverse events (SAEs) were registered (incidence rate [IR] = 4.17 SAEs/100 person months). There were no significant differences in the incidence of SAEs between the three intervention groups (IRR_{SeSa} vs. $_{TAU}$ = 0.84, 95% CI 0.55 to 1.30; IRR_{SeSa} vs. $_{RPT}$ = 0.85, 95% CI 0.54 to 1.34; IRR_{RPT} vs. $_{TAU}$ = 0.99, 95% CI 0.66 to 1.49). The most frequent SAEs were increases in

	suicidality (n = 77, 63.1%), followed by events that led to unplanned hospital admissions (n = 23, 18.9%), life-threatening events (n = 14, 11.5%, e.g. car accident, suicide attempts, medical conditions), events that necessitated an intervention to prevent persistent damage or impairment (n = 7, 5.7%, e.g. injuries caused by a physical assault, medical conditions, substance overdose) and one event (0.8%) that led to a significant disability (a case of paralysis due to a physical condition). One participant (RPT group) died from a substance overdose during the follow-up phase. A relation of study participation to the SAEs was rated as probable in three cases (mainly cases of increases in suicidal thoughts) and as definite in one case (psychological decompensation and alcohol relapses that necessitated inpatient treatment after an assessment interview).

Tutkimus, julkaisuvuosi Sheridan Rains L, Steare T, Mason O, Johnson S. Improving substance misuse outcomes in contingency management treatment with adjunctive formal psychotherapy: a systematic review and meta-analysis. BMJ Open. 2020 Oct;10(10):e034735.	
Maa, toimintaympäristö	USA, n = 6 RCTs community-based substance misuse treatment centres, n = 1 RCT universities, n = 1 RCT agency serving homeless people, n = 1 RCT prenatal care clinics n = 3 RCTs public focused advertising/research clinic or university
Tutkimusasetelma	Systematic review and meta-analysis
Harhan riski (JBI)	**JBI:11/11** ***Following criteria increased the risk of bias:*** - ***The assessment of the risk of bias addressed in study:*** Overall, the quality of evidence was rated as moderate using GRADE due to the possibility of bias.
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria**: 1. Only randomised controlled trials, 2. Studies that included adult participants (18–65 years old) only. 3. Study designs needed to feature at least one experimental arm in which participants received combined CM and a structured evidence-based psychotherapeutic intervention, and an arm in which participants receive CM alone. 4. Studies needed to target illicit substances, alcohol or tobacco misuse. 5. Studies needed to measure substance use either by a biometrically verified or self-reported measure of substance use at treatment end.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 12 RCTs Substance used and SUD severity: • Three studies targeted cocaine, two cannabis, two methamphetamine, one cocaine or methamphetamine, one cocaine or opioids, and one polysubstance. ○ Participants were evaluated as substance-dependent individuals (expect one with participants identified as methamphetamine using men who have sex with men) • Two studies targeted tobacco

	Opioid substitution therpy • In five studies, all trial participants were also receiving opioid substitution therapy (four methadone and one naltrexone). N = 1654 participants • suitable arms were extracted for a total subject pool of 974 participants • two tobacco studies, total n = 58 participants Age, mean • 34.28 years Sex • 1123 (68 %) were male
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Contingency management + formal, evidence-based psychotherapeutic intervention** **Contingency management (CM):** The number of CM sessions varied from 5 to 48, and the maximum reward that participants could receive was between $25 and $1277.50. Nine studies used a variable reward schedule in which the value of the rewards rose as more sessions were passed, two studies featured a fixed reward and the other offered a prize draw for rewards of various values for each negative result. The duration of the intervention period varied from 3 to 24 weeks. **Formal, evidence-based psychotherapeutic intervention:** The type of psychotherapies varied quite widely: seven included cognitive–behavioural therapy (CBT) and/or motivational enhancement therapy (MET), and the other five were structured psychotherapeutic packages targeting substance use. These were: 1. Affect Regulation Treatment to Enhance Methamphetamine Intervention Success (ARTEMIS), an individual tailored intervention targeting positive affect 2. Significant other or family counselling 3. Manualised behavioural treatment 4. A brief, computer-delivered intervention 5. One-to-one counselling **Additional treatments** • None n = 7 studies • Naltrexone n = 1 study • Methadone n = 4 studies
Interventioon sitoutuminen	-
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	CM only OR psychotherapeutic intervention only OR ”control”
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcome** • Point prevalence abstinence (PPA) of the substance being targeted by the intervention at treatment end (measured using biometrics including urinalysis, saliva cotinine or other appropriate method)

	Secondary outcomes • PPA at follow-up at least 3 months following treatment cessation • Self-reported days of substance use at treatment end and follow-up (mean number of substance using days)
Seuranta-aika ja mittauspisteet	Treatment end, 3 months follow-up
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Point prevalence abstinence (PPA), treatment end** For the primary analysis, 10 studies reported biometrically verified (PPA) data at treatment end, including a total of 786 participants. There was no benefit on PPA substance use outcomes from adding psychotherapy to CM (relative risk (RR) 0.97, 95% CI 0.85 to 1.09, p=0.57). There was no evidence of statistical heterogeneity (I^2 = 0 %) in the included trials. The other two studies reported self-reported substance use measures only. At treatment end, neither reported an effect for CM plus psychotherapy compared with CM only. There was evidence of heterogeneity in self-report at treatment end (I^2 = 37 %). Overall, 1 out of 12 studies reported a significant treatment effect for CM plus psychotherapy compared with CM by treatment end, favouring CM only. Due to wide variability in the types of psychotherapy used across trials, a sensitivity analysis was performed for the six trials delivering CBT and/or MET. Results were similar to the primary analysis and indicated no effect (RR 0.92, 95% CI 0.79 to 1.08, p=0.32). As before, there was no evidence of heterogeneity in study results (I^2 = 0). To address the possibility that the effectiveness of the treatment may vary between substances, a subgroup analysis was performed by substance type. Across the six studies targeting stimulants, there was no evidence of an effect at treatment end (RR 0.91, 95% CI 0.78 to 1.05, p=0.19) (I^2=0%). Other substance groups (tobacco, cannabinoids and polysubstance use) each had two studies or fewer and so were not included in the analysis. Among studies reporting PPA outcomes, CM was more effective than treatment-as-usual by treatment end (RR 2.29, 95% CI 1.45 to 3.60, p<0.01) (I^2 =0%). CM plus psychotherapy (RR 1.84, 95% CI 1.15 to 2.95, p<0.01) (I^2 =0%) and psychotherapy only (RR 1.64, 95% CI 1.01 to 2.66, p=0.05) (I^2=0%) were also more effective than treatment-as-usual. There was no significant difference between psychotherapy only and CM only (RR 0.80, 95% CI 0.60 to 1.07, p=0.14) or CM plus psychotherapy (RR 0.94, 95% CI 0.72 to 1.22, p=0.62) groups. Although there was moderate heterogeneity in results (I^2 =54% and 38%, respectively). Five of seven studies reported CM only was more effective than psychotherapy only. **Point prevalence abstinence (PPA) and self-reported substance use, follow-up** PPA outcomes at post-treatment follow-up, like at treatment end, showed no treatment effect for CM plus psychotherapy compared with CM alone (RR 0.98, 95% CI 0.80 to 1.21, p=0.86). Self-reported measures of substance use at

	treatment end also found no benefit for CM plus psychotherapy compared with CM alone (SMD=0.2, 95% CI −0.0.4 to 0.35, p=0.10) or post-treatment follow-up (SMD=−0.18, 95% CI −0.68 to 0.32, p=0.47). There was evidence of heterogeneity in the PPA results at post-treatment follow-up (I^2=34%), and of high heterogeneity in self-report at post-treatment follow-up (I^2 = 77 %). Overall, 1 out of 12 studies favoured CM plus psychotherapy at post-treatment follow-up.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Silva MA, Jaramillo Y, Paris M, Añez-Nava L, Frankforter TL, Kiluk BD. Changes in DSM criteria following a culturally-adapted computerized CBT for Spanish-speaking individuals with substance use disorders. J Subst Abuse Treat. 2020 Mar;110:42–8.	
Maa, toimintaympäristö	USA, outpatient treatment centers
Tutkimusasetelma	Randomized controlled trial, secondary analysis of data
Harhan riski (JBI)	**JBI: 8/13** ***Following criteria increased the risk of bias:*** Q4: Were participants blind to treatment assignment? Q5: Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment? Q8: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed? Q9: Were participants analyzed in the groups to which they were randomized?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria**: (1) age 18 or older; (2) Spanish as preferred and primary language; and (3) current (past 30 days) DSMIV criteria for abuse or dependence on alcohol or other drugs. From a total of 92 participants randomized in the clinical trial, 83 met DSM-IV criteria for substance dependence at baseline (90% of randomized sample) and were used in subsequent analyses. **Exclusion criteria:** Untreated bipolar or psychotic disorder or otherwise not sufficiently stable for outpatient treatment.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 83 treatment-seeking Latino adults with substance dependence • Intervention group n = 39, control group n = 44 Primary substance used: • marijuana 34% • alcohol 35% • cocaine 27% • opioids 2% • benzodiazepines 1% • other 1%

	Sex • Female: intervention group n = 11 (28.2 %) / control group n = 17 (38.6 %) Days of primary substance use, mean (SD) • 10.0 (9.3) / 13.7 (10.3)
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Cultural and linguistic adaptation of a web based CBT4CBT program + treatment as usual (TAU)** CBT4CBT is a web-based Cognitive Behavioral Therapy program. CBT4CBT-Spanish program used in this study retained the 7 modules/sessions focused on teaching the core CBT skills and strategies for recognizing, avoiding, and coping with triggers for substance use as in the English-language program, but now delivered entirely in Spanish with content adapted to focus on the integration of cultural values in storyline and character development. For this adaptation, a telenovela format was used as the skill teaching platform to facilitate engagement with the program. Also Latino values were incorporated into development of the characters due to their relevance among diverse Latino subgroups and anticipated influence on behavior change. Participants were provided access to the CBT4CBT-Spanish program on a dedicated computer/laptop in a private space within the outpatient facility and asked to complete one module/session per week in addition to attending their weekly TAU session. Each CBT4CBT module took approximately 35–40 min to complete. CBT4CBT was delivered over the course of 8 weeks together with TAU.
Interventioon sitoutuminen	Participants completed on average 5 out of the 7 CBT4CBT modules.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Treatment as usual (TAU)** TAU consisted of supportive counseling via weekly group or individual sessions, as well as access to other ancillary services as needed.
TULOSMUUTTUJAT	

Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes**
	• Changes in DSM-IV dependence criteria (Structured Clinical Interview for DSM-IV)
	  ○ criteria count
	  ○ proportion of those continuing to meet diagnostic threshold for DSM-IV substance dependence

Seuranta-aika ja mittauspisteet	Baseline, end-of-treatment (8 weeks)
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Changes in DSM-IV dependence criteria** Of the 83 participants meeting DSM-IV criteria for dependence at baseline, 76 completed the SCID interview at end-of-treatment. Results of generalized linear models with Poisson distribution indicated a significant change in DSM-IV dependence criteria count over time: Wald X^2 (df = 1) = 136.20; p < 0.001, and a significant interaction of time by treatment

	group: Wald X^2 (df = 1) = 19.92, p < 0.001. This indicated a significant reduction in total criteria count overall, as well as a greater reduction for those assigned to TAU+CBT4CBT compared to TAU, which is consistent with the main study findings regarding change in frequency of primary substance used. In terms of the change in proportion of those continuing to meet diagnostic threshold for DSM-IV substance dependence, results of chi-square tests did not reveal a significant difference by treatment condition at week 8: X^2 (3, 76) = 1.91, p = 0.17. Among those meeting dependence criteria at baseline, 71% assigned to TAU+CBT4CBT no longer met criteria at week 8, compared to 56% of those assigned to TAU.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Steele DW, Becker SJ, Danko KJ, Balk EM, Adam GP, Saldanha IJ, Trikalinos TA. Brief Behavioral Interventions for Substance Use in Adolescents: A Meta-analysis. Pediatrics. 2020 Oct;146(4):e20200351.	
Maa, toimintaympäristö	Hospital, primary care, community, school
Tutkimusasetelma	Systematic review and meta-analysis
Harhan riski (JBI)	**JBI: 10/11** ***Following criteria increased the risk of bias:*** Q9: Was the likelihood of publication bias assessed? ***The assessment of the risk of bias addressed in study:*** The most common methodologic concerns involved lack of blinding of participants (all RCTs had a high RoB), personnel (21 had a high RoB), and outcome assessors (12 had a high RoB.
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Studies had to be randomized controlled trials (RCTs) in which researchers compared 2 interventions with at least 10 participants per arm. RCTs had to have been focused on adolescents, aged 12 to 20 years inclusive (ie, 80% of the population had to be within this age range), who met criteria for at least 1 SUD or for problematic SU (excluding tobacco). Problematic use was operationally defined as meeting at least 1 of the following criteria: (1) referral for treatment by self, parent, school, other professional, or the justice system; (2) screened by using a validated tool, with a BI given to those who met prespecified criteria indicating elevated risk; (3) reported SU at least once per month; or (4) identified after a substance-related consequence, such as an alcohol related emergency department visit. To be eligible for the current analysis at least 1 of the evaluated interventions had to be designated as brief, defined as 1 or 2 sessions. **Exclusion criteria:** We excluded interventions focused on drinking in the college setting because (1) this population is developmentally distinct from adolescents with problematic SU and (2) and such

	studies have been the focus of multiple previous systematic reviews.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 22 RCTs ➔ n = 13 RCTs cannabis use days (n = 2386 adolescents with problematic cannabis and/or alcohol use/cannabis and/or alcohol use disorder) ➔ n = 6 RCTs cannabis abstinence (n = 1119 adolescents with problematic cannabis and/or alcohol use/cannabis and/or alcohol use disorder) Age range 12–21 years
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Motivational interviewing (MI):** At least 1 session was focused on building the adolescent's motivation to reduce substance use and/or attain abstinence. Motivation enhancement therapy, a more structured and specific approach to building the adolescent's motivation, was also categorized as MI. Intervention was delivered by peer educators (n = 1), computer (n = 1), research staff (n = 6), facilitators (n = 1) clinicians (n = 1), therapists (n = 2), school providers (n = 1), health educators (n = 1)
Interventioon sitoutuminen	-
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Cannabis use days**: 1 study had 3 arms (MI, psychoeducation and TAU), MI was compared to TAU in 9 studies, and MI versus psychoeducation was evaluated in 3 studies **Cannabis abstinence:** MI was compared to TAU in 4 studies and MI versus psychoeducation was evaluated in 2 studies
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes:** • Cannabis use days (frequency of any use of cannabis) • Cannabis abstinence (categorical measures)
Seuranta-aika ja mittauspisteet	-
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Cannabis use days:** The estimate from the Bayesian network meta-analysis for the effect of MI versus TAU was -0.05 (95% CrI -0.26 to 0.14) days per month. This result is used to support the conclusion that MI is not more effective than TAU in reducing cannabis use days. Because of moderate RoB, we rated the strength of evidence as moderate. **Cannabis abstinence:** The summary OR for MI versus TAU was 1.5 (95% CrI: 0.7 to 3.4). Because of moderate RoB and imprecision compatible with a null effect, we rated the strength of evidence as insufficient.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Stephens RS, Walker R, DeMarce J, Lozano BE, Rowland J, Walker D, et al. Treating cannabis use disorder: Exploring a treatment as needed model with 34-month follow-up. J Subst Abuse Treat. 2020 Oct;117:108088.	
Maa, toimintaympäristö	USA, community
Tutkimusasetelma	Randomized controlled trial
Harhan riski (JBI)	**JBI: 7/13** ***Following criteria increased the risk of bias:*** Q1: Was true randomization used for assignment of participants to treatment groups? Q2: Was allocation to treatment groups concealed? Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment? Q9: Were participants analyzed in the groups to which they were randomized?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Cannabis users interested in quitting or reducing use. Eligible participants were 18 years of age or older and met DSM-IV diagnostic criteria for cannabis dependence and had no evidence of psychosis/suicidality. Fluent in English and available locally for the duration of the study. **Exclusion criteria:** Met dependence criteria for alcohol or other drug use, were currently involved in other treatment or had used cannabis on fewer than 50 of the past 90 days.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 87 adults who met DSM-IV criteria for cannabis dependence • Providing treatment “as needed” group n = 43, fixed dose comparison condition n = 44 Age, years, mean (SD) • 35.6 (8.7) Sex • Male 75% Cannabis use: • Typically, had used cannabis on 84% of the past 90 days • Typically using 3.9 (SD = 2.4) times per day
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Motivational enhancement therapy (MET) and cognitive behavioral therapy (CBT): PRN vs. fixed dose** **<u>Providing treatment “as needed” (PRN):</u>** We structured the PRN condition to allow participants to begin with a smaller, but likely effective, dose of treatment and then self-select additional treatment as needed. All participants in this condition began with 4 individual therapy sessions scheduled weekly that were similar to the fixed-dose condition sessions in content and process. The first two PRN sessions used the same MET processes to build motivation. The next two sessions included content selected from 2 of the 5 core CBT modules in the Fixed-dose condition. Therapists chose specific CBT modules collaboratively to

	meet the perceived needs of the participant. Case management occurred based on participant needs. Therapists gave participants in this condition the expectation that the 4 sessions would be sufficient to engender successful outcomes for many people, but that they could return for additional brief episodes of therapy as needed throughout the first 28 months of the follow-up period. Ending the availability of additional treatment at 28 months allowed for an assessment of durability of change during the six months between the 28-month and the final 34-month follow-up. We scheduled additional episodes of treatment for participants in the PRN condition with the same therapist, and they were limited to 1–3 individual sessions in any one-month period. Therapist and participant decided collaboratively about the number of sessions during an episode. Additional episodes of treatment could not begin until at least one month following the initial four base sessions. Participants could initiate the next episode anytime within these constraints by contacting the research office, which facilitated scheduling of the next sessions with therapists. Therapists determined the content and process of PRN episode sessions based on the participant's goals and readiness for change. The therapist used motivational enhancement strategies when the participant's motivation for change had waned, whereas CBT and case management techniques were appropriate for targeting specific obstacles to change encountered since the last treatment session. Once a PRN episode was completed, the participant could not initiate another PRN episode for four more weeks. We designed the rules governing the limited number of sessions per episode (1–3) and the mandatory four-week break between episodes to keep treatment focused on cannabis use issues and avoid treatment turning into continuous, long-term therapy. A total of 15 additional treatment episodes, consisting of as many as 45 additional treatment sessions, over 28 months were possible.
Interventioon sitoutuminen	Participants in the fixed-dose condition attended an average of 7.84 treatment sessions with 66% completing all 9 sessions. In the PRN condition, 77% completed the 4 base treatment sessions, with an average of 3.58 sessions attended. Sixteen PRN participants (37%) returned for more episodes of treatment (M = 4.38; SD = 3.42; range 1–13). These participants utilized an additional 8.50 (SD = 8.63; range 1–30) sessions on average. Six of the 16 participants used a single additional episode, five participants used 2 to 5 episodes, and 5 participants used 6 to 13 episodes. Across base treatment and episode use, the average number of sessions attended by PRN condition participants was 6.74.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**<u>Fixed dose comparison condition (9-session MET/CBT intervention):</u>** Participants in this condition met individually with a therapist on nine occasions over 12 weeks. We scheduled the first 8 sessions weekly and the 9th session was scheduled one-month after the 8th session (i.e., approximately week 12). In the first two sessions, the therapist reviewed a personalized feedback report with the participant and used motivational

	interviewing techniques to build motivation and solidify commitment to change. Subsequent sessions drew on a menu of 5 core (i.e., identifying antecedents to use, coping with urges to use, managing thoughts about using, problem solving, and refusal skills) and 5 elective (i.e., coping with lapses, avoiding relapse situations, managing negative mood states, assertiveness training, and anger management) CBT skills training modules. Therapists collaborated with participants in choosing the elective modules based on perceived need. Therapists recommended an abstinence goal but did not require one. Case management activities occurred throughout the nine sessions starting with the identification of any social, economic, or physical barriers to change in cannabis use and then identifying resources, developing plans, and monitoring progress in addressing the barriers.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcome**: • Percentage of days on which cannabis use occurred (interviewer-administered Timeline follow-back (TLFB) + urine specimens) **Secondary outcomes:** • Periods of use per day and abstinence from any use (interviewer-administered timeline follow-back (TLFB)) • Cannabis-related problems (Marijuana Problems Scale (MPS))
Seuranta-aika ja mittauspisteet	Baseline and 4-, 10-, 16-, 22-, 28-, and 34-month follow-ups
Tutkimuksen keskeyttäneet (n-määrät, syyt)	Attrition: • 10-month follow-up: 81% vs 97% • 16-month follow-up: 81% vs 95% • 22-month follow-up: 81% vs 93% • 28-month follow-up: 79% vs 93% • 34-month follow-up: 70% vs 91%
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Percentage of days of cannabis use** A 2 (Condition) × 7 (Time) general linear model (GLM) analysis performed on the percentage of days of cannabis use at each assessment showed a significant effect of Time ($F(6, 498) = 34.76$, $p < 0.001$). Pairwise comparisons showed that cannabis use at each follow-up was significantly reduced relative to baseline levels (all $ps < 0.001$). The effects of Condition ($F(1, 83) = 0.42$, $p > 0.05$) and Condition × Time ($F(6, 498) = 1.03$, $p > 0.05$) were not significant. Between group effect sizes (d) at each follow-up assessment ranged from 0.31 at the 4-month assessment to 0.02 at the 28-month follow-up, with mean differences showing less cannabis use in the fixed-dose condition at earlier follow-ups. **Periods of use per day and cannabis-related problems** The analysis performed on the daily periods of use and the cannabis problems measures showed the same patterns. The main effect of Time was significant for both quarters of use per day ($F (6, 498) = 13.39$, $p < 0.001$) and cannabis problems ($F (6, 498) = 31.15$, $p < 0.001$), but there were no significant effects of Condition or Condition × Time interactions ($ps > 0.05$). Periods of use per day and self-reported problems at each follow-up assessment were significantly

	reduced relative to baseline (all ps < 0.05). For periods of use per day, between groups effect sizes were smaller than for percentage days of use but still favored the fixed-dose condition at early follow-ups. Effect sizes for problem scores were closer to zero and did not show a consistent pattern favoring one condition over the other. **Abstinence** At the 4-month follow-up a significantly higher percentage of participants in the fixed-dose condition reported abstinence (37%) compared to the PRN condition (15%), $X^2 = 4.96$, $p < 0.05$. There were no significant differences in abstinence rates between conditions at any other follow-up assessment, all ps > 0.05.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Stuart AM, Baker AL, Denham AMJ, Lee NK, Hall A, Oldmeadow C, Dunlop A, Bowman J, McCarter K. Psychological treatment for methamphetamine use and associated psychiatric symptom outcomes: A systematic review. J Subst Abuse Treat. 2020 Feb;109:61–79.	
Maa, toimintaympäristö	Australia (n = 5), USA (n = 5); inpatient and outpatient alcohol and other drug services or community mental health centres
Tutkimusasetelma	Systematic review
Harhan riski (JBI)	**JBI: 11/11** ***Following criteria increased the risk of bias:*** - ***The assessment of the risk of bias addressed in study:*** The quality of the primary research evidence is relatively low in terms of homogeneity (with evidence of substantial heterogeneity, inconsistent comparison groups and outcomes). The level of evidence for primary outcomes was as follows: moderate for methamphetamine use, low for abstinence, and for mental health measures it was moderate for ASI and BSI, and low for BDI I, II. The quality of the primary research evidence is relatively moderate in terms of conduct and reporting. Outcomes were downgraded due to multiple concerns including small participant numbers, gender bias and inconsistency in reporting. Furthermore, studies were based on high income countries such as Australia and the USA. Numerous studies excluded participants with a psychiatric diagnosis, even though comorbidity is common among people who use methamphetamine.
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** Studies were included if they tested a psychological intervention and measured the following outcomes: i) methamphetamine use and (ii) psychiatric symptoms and/or disorders at baseline and post-treatment. Participants included were adults (over 18), using methamphetamine alone or in combination with other substances (poly-drug use). Interventions could be delivered in any setting including inpatient units

	(drug and alcohol rehabilitation or hospital settings), community or prison settings. Psychological interventions included one or more psychological strategies (such as cognitive or behavioral strategies) designed to modify methamphetamine use. Only randomized controlled trials were eligible. Interventions were compared with active controls (e.g. other psychological interventions), treatment as usual (TAU) or minimal care control conditions (e.g. self-help booklets). Interventions were of any duration, delivery, frequency and intensity. Primary outcomes were: i) any outcome measure reporting change (reduction/increase) between baseline and follow-up assessment occasion/s in methamphetamine use or abstinence from methamphetamine use; and ii) any outcome measure reporting change between baseline and follow-up occasion/s (reduction/increase) in psychiatric symptoms or diagnoses. Secondary outcomes of interest were treatment engagement and changes from baseline to follow-up in other drug use, blood-borne virus (BBV) risk-taking behavior, physical health, quality of life using validated measures and global or social levels of functioning. Outcomes reflected any time frame (e.g. short-term, long-term) and were rated by clients or clinicians, in the form of an assessment by objective or subjective measures.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 2 RCTs (excl. n = 5 studies with non-dependent participants/participants with SUD, n = 1 study with no between-group results, n = 2 studies duplicate with AshaRani et al. 2020 review) Age: • Mean ages ranging from 36.2 to 43.01 years Sex: • Participants were predominantly male Substance dependence and comorbidities: • n = 1 RCT with methamphetamine (MA), amphetamine or cocaine dependent participants with diagnosis of schizophrenia, schizoaffective disorder, bipolar I or II disorder, or major recurrent depressive disorder • n = 1 RCT with MA or cocaine dependent participants
INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Intervention and control variations** • Contingency management (CM) + treatment as usual (TAU) vs. non-contingent rewards for study participation only + TAU • CBT + CM vs. CBT vs. CM Intervention lengths ranged from between one session to 12 sessions (over four months).
Interventioon sitoutuminen	Intervention attendance was variable.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	See intervention descriptions
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	• Urine Analysis • The number of days participants reported using MA (self-report)

Seuranta-aika ja mittauspisteet	The follow-up periods varied from one month to 12-months post-intervention.
Tutkimuksen keskeyttäneet (n-määrät, syyt)	-
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**CBT + CM vs. CBT vs. CM**, N = 177 participants During treatment, the mean number of stimulant free urines for CM and CBT+CM treatment conditions was significantly higher than for CBT only (F=10.0 (df=2, 176), p < 0.0001). The CBT+CM group gave the most stimulant-free samples (M=28.6), followed by CM (M=27.6). CBT had the lowest stimulant-free samples (M=15.5) across the 16 weeks. A 3-week criterion of consecutive abstinence revealed significant differences between groups (χ2=15.5, df=2, n=177, p < 0.0001) with pairwise comparisons made between CBT (34.5%) vs CM (60.0%; χ2=14.9, df=1, n=97, p < 0.0001) and CBT vs CBT+CM conditions (69.5%; χ2=18.4, df=1, n=97, p < 0.0001). In comparing the CM and CM+CBT conditions, no significant differences in abstinence were found. During the follow-up period, all three groups had between 67% and 79% stimulant free samples across all time-points, with no differences between conditions. There was a significant main effect for all three treatment groups with regard to the reduction in the mean number of days participants reported using MA from the month preceding admission interviews to the month preceding the treatment-end (week 17) interviews (F=3.9, df=3, n=106, p < 0.01). There were no between group differences. **CM + TAU vs. non-contingent rewards (NCC) for study participation only + TAU**, N = 176 participants CM (M=0.91, SD 2.40) reported significantly fewer days of stimulant use during treatment compared to NCC (M=4.67, SD 7.69 (β=2.70, 95% CI=0.91–4.31, p < 0.05). At follow-up, CM (M=1.83, SD 4.94) continued to report lower scores than NCC (M=3.65, SD 7.15 β=2.16, 95% CI=0.18–3.24, p < 0.05). Participants in CM group were 2.4 times (95% CI=1.9–3.0, p < 0.05) as likely as those in NCC group to submit a stimulant negative urine sample during the treatment period (three urine tests submitted per week, for 12 weeks). Participants in CM more likely than those in NCC to submit stimulant negative urine test during follow-up (46%, 35% respectively; odds ratio=1.4, 95% CI=1.0–1.9, p < 0.05).
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-

Tutkimus, julkaisuvuosi Tetrault JM, Holt SR, Cavallo DA, O'Connor PG, Gordon MA, Corvino JK, Nich C, Carroll KM. Computerized Cognitive Behavioral Therapy for Substance Use Disorders in a Specialized Primary Care Practice: A Randomized Feasibility Trial to Address the RT Component of SBIRT. J Addict Med. 2020 Dec;14(6):e303–9.	
Maa, toimintaympäristö	USA, addiction Recovery Clinic
Tutkimusasetelma	Randomized control trial (pilot study)
Harhan riski (JBI)	**JBI: 11/13** ***Following criteria increased the risk of bias:*** Q4: Were participants blind to treatment assignment? Q8: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?
POTILASRYHMÄ	
Tutkittavien mukaanotto- ja poissulkukriteerit	**Inclusion criteria:** (1) 18 years of age or older, (2) met current DSM-5 criteria for current cocaine, marijuana, opioid, alcohol or other stimulant use disorder, and (3) sufficiently medically and psychiatrically stable for 8 weeks of outpatient treatment. **Exclusion criteria:** Individuals were excluded if they had an untreated bipolar disorder or schizophrenia, required or were requesting detoxification services for alcohol, benzodiazepine or opioid use disorder, or could not read at a 6th grade level.
Kuvaus tutkimukseen osallistuneista (n-määrä, ikä- ja sukupuolijakauma, diagnoosit ja liitännäissairaudet)	N = 58 participants with current cocaine, marijuana, opioid, alcohol or other stimulant use disorder • Intervention group n=30, control group n=28 Age: • mean age 43.5 years Primary substance used: • 36% reported alcohol • 33% reported opioids • 17% reported cocaine • 9% reported benzodiazepines • 5% reported marijuana Half the sample was treated with buprenorphine Dependence: • 48 %with alcohol dependence • 41 % with cocaine dependence • 12 % with cannabis dependence • 48 % with opioid dependence • 10 % with benzodiazepine dependence Abuse: • 16 % with alcohol abuse • 3 % with cocaine abuse • 16 % with cannabis abuse • 2 % with amphetamine abuse • 5 % with opioid abuse • 10 % with benzodiazepine abuse

INTERVENTIO	
Kuvaus tutkittavasta interventiosta (intervention nimi, sisältö, toteutus, kesto, mahdollinen oheishoito)	**Standard care plus CBT4CBT** (= computer-based training for cognitive behavioral therapy) Those assigned to the CBT4CBT condition were provided standard care; in addition, they were provided a unique username and password so they could access the CBT4CBT program and were given a demonstration of how to use the program by the research assistant. CBT4CBT program is a 7- module web-based program that uses engaging video examples, animations, practice exercises, and narration to teach behavioral and cognitive control strategies (eg, coping with craving, identifying triggers, challenging thoughts, decision making, and problem-solving skills). Participants were compensated only for the time they spent completing study assessments.
Interventioon sitoutuminen	For the 30 subjects assigned to CBT4CBT, 23 (77%) completed at least 1 CBT4CBT session; and of those 21 (91% of initiators, 70% of all those randomized) completed all 7 sessions, which compares very favorably to previous studies of CBT4CBT done in specialty substance use treatment settings. Among the 23 who accessed the program at least once, 18 (78%) completed some homework.
VERTAILUINTERVENTIO	
Kuvaus vertailuinterventiosta	**Standard care** Standard care within an outpatient primary care practice offering integrated addiction care (Addiction Recovery Clinic (ARC)). ARC offers addiction medication (eg. buprenorphine) and behavioral interventions to patients identified as having a SUD. Standard care at the ARC is typically delivered during 2 clinic half days per week.
TULOSMUUTTUJAT	
Kuvaus ensi- ja toissijaisista tulosmuuttujista (ml. mittarit)	**Primary outcomes:** • % days of substance use, % days abstinent (Timeline Follow Back interviews, urine toxicology screens and breathalyzers)
Seuranta-aika ja mittauspisteet	Baseline and 8 weeks (end of treatment)
Tutkimuksen keskeyttäneet (n-määrät, syyt)	**Standard care plus CBT4CBT** Number completed week 4 assessments n = 27 (90%) Number completed week 8 assessments n = 25 (83%) **Standard care** Number completed week 4 assessments n = 24 (86%) Number completed week 8 assessments n = 24 (86%)
KESKEISET TULOKSET	
Vaikuttavuus (tilastollinen merkitsevyys/kliininen merkittävyys)	**Substance use** Substance use outcomes were excellent in both conditions; participants as a group reported abstinence on greater than 90% of days for alcohol, cocaine, marijuana, opioid, and benzodiazepine use, with no significant differences by treatment condition.

	Abstinence Percent days of abstinence from all drugs was 85% for the CBT4CBT plus standard care group and 82% for standard care alone; self-reported abstinence from alcohol and all drugs was 80% for CBT4CBTþstandard care versus 74% for standard care; with no significant differences by condition. Results of urine toxicology screens which were collected at Week 8; these again were predominantly negative, with no significant differences by treatment group.
Kustannukset ja kustannusvaikuttavuus	-
Turvallisuus	-