Drug use disorder module - evidence profile DRU5: Recovery-oriented services for adults with drug dependence

WHO mhGAP guideline update: Mental Health Gap Action Programme (mhGAP) guideline for mental, neurological and substance use disorders

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Contents

Mental Health Gap Action Programme (mhGAP) guideline for mental, neurological and substance use disorders, available at: https://www.who.int/publications/i/item/9789240084278

1. Background

Recovery oriented services (ROS) can be used in adults with drug dependence to increase patients' health and wellness, as well as supporting them in recovery from drug use disorders. This approach is also known as: recovery management, recovery-oriented aftercare, or simply continuing care or social support and are an evolving approach to the long-term treatment of drug use disorders that goes beyond a single treatment episode, or a short-term aftercare program. It generally supports patients throughout their treatment process in different treatment settings and modalities. This approach focuses on reducing the risk of relapse to substance use by comprehensively supporting social functioning, well-being, as well as social reintegration into the community and society, so it aims to improve health and wellness, while stabilizing and strengthening recovery. It helps improve patients' social functioning by enabling them to build on their strengths and resilience while keeping the focus on personal responsibility in managing their drug use disorder. The factors associated to sustained recovery include employment, housing, supportive social networks, improved coping skills and activities focused on promoting self-esteem (Bandura, 1977; Burling, Reilly, Moltzen, & Ziff, 1989; Dobkin, Civita, Paraherakis, & Gill, 2002; Havassy, Hall, & Wasserman, 1991; Jones &McMahon, 1996; Moos & Moos, 2007; Witkiewitz & Marlatt, 2004)

ROS usually follows more intensive levels of care such as residential and intensive outpatient treatment; it is generally less intensive than former interventions, but it lasts much longer and is usually integrated with the network of community-based support resources and services. Therefore, it is the alternative to a more traditional approach, where patients participate in periods of short-term intensive treatment followed by discharge and treatment termination. Thus, it represents a change in the drug dependence management, with a focus on long-term management, as opposed to single-episode treatment, because of the accumulating evidence that the risk of release remains high for several - up to 4-5-years after a treatment episode.

Long-term care is consistent with the notion that drug dependence is a chronic and often relapsing disorder, similar to other multifactorial diseases like hypertension, asthma and diabetes, rather than as an acute illness or episode (DuPont, Compton and McLellan, 2015). As such, individuals with drug use disorders should have lifetime access to medical and psychosocial interventions, with the intensity matching the severity of their symptoms.

ROS should include long-term pharmacological, psychosocial and environmental interventions aimed at reducing substance use and criminal behaviour while helping improve overall physical and mental health, well-being and social functioning. It focuses on minimizing risks associated with drug use, reducing levels of drug use aiming for a complete abstinence, developing skills to control drug-seeking behaviour and manage daily stress related to maintaining housing, unemployment or workplace problems, social isolation or unsatisfactory interpersonal relationships. In general, it helps patients improve and stabilize the quality of their life and opportunities for social reintegration in the community.

The following activities are often a part of broad ROS: 1) strengthening the individual's resilience, self-efficacy and self-confidence to manage daily challenges and stresses, 2) developing a supportive social network that can monitor the stability of recovery, abstinence from drugs, compliance with treatment and maintain a supportive social environment that promotes health and recovery, 3) educating and providing patients with access to strategies and tools to prevent, identify, and manage drug overdose, 4) providing access to long-term pharmacological treatment if indicated, 5) reducing burden of stigma and discrimination, 6) assuring freedom from violence and abuse, 7) providing stable accommodation and resolving legal and financial problems, 8) supporting social participation and integration in educational and vocational pursuits, including volunteering or community involvement, 9) promoting involvement in self-help, mutual-help, spiritual or other support groups, and 10) promoting social, cultural, political, humanitarian or spiritual involvement that provides a way to achieve a stronger purpose in life

An important part of ROS is a regular monitoring or follow-up (check-ups) meetings or phone calls, undertaken by a professional (drug treatment counsellor, psychologist, primary care physician, or nurse).. During the check-up, the patient may be asked to provide an update on their work performance, living conditions and mechanisms for coping with stress or maintaining healthy relationships. Recovery check-ups may include voluntary drug toxicology testing, with patients being offered the option to be screened in the community. The aim of the testing is to give patients the incentive to be 'drug free', detect relapse and, if necessary, enable them to benefit from timely re-intervention. There is emerging evidence that recovery check-ups are effective methods of preventing relapse and managing recovery over time, and that they are cost-effective and, potentially, cost-saving strategies for promoting abstinence and reducing substance use among people with chronic substance use disorders (White, 2007; McCollister et al., 2013; Miller, 2013; Dennis, Scott and Laudet, 2014; Garner et al., 2014)

This report aims to review and grade the existing evidence on the effectiveness of ROSs to answer some of the outstanding questions and provide guidance to providers. It will use a structured approach to evidence review as outlined in WHO handbook for guideline development https://apps.who.int/iris/handle/10665/145714.

Below are outlined the methods that were used in preparation of the report together with details of the results and a discussion with recommendations. Based on preliminary searches we believe that existing systematic reviews are sufficient to prepare the evidence summaries

2. Methodology

2.1 PICO question

Are recovery-oriented services effective in adults with drug dependence?
Population (P): Adults with drug dependence
Intervention (I): recovery-oriented services (e.g. housing, supported employment, vocational rehabilitation, helpline, user-oriented care, long-term)
Comparator (C): Treatment as usual, wait list, no treatment, head-to-head comparison
Outcomes (O):

List critical outcomes:

- **Critical outcome 1:** Drug consumption
- **Critical outcome 2:** Harm from drug use

List important outcomes:

- **Important outcome 1:** Adverse effects
- **Important outcome 2:** Psychosocial functioning
- **Important outcome 3**: Overall quality of life

Subgroups: specific categories within the recovery-oriented approach:

- Digital Recovery support;
- User-involvement/oriented care models (spiritual/religious interventions; role of self-care; mindfulness-based therapies/MORE; physical exercise; occupational therapy);
- Employment;
- Recovery oriented systems of care: Peer recovery support services (PRSS), case management, assertive community treatment (ACT);
- Long-term approaches;
- Housing;
- Family Support;

2.2 Search strategy

The search was conducted during February 2022, using the following databases: PubMed/MEDLINE, PsycInfo, Embase, Scopus, African Index Medicus, Index Medicus for the Eastern Mediterranean Region, Index Medicus for the South-East Asian Region, Latin American and Caribbean Health Sciences Literature, and Western Pacific Region Index Medicus, Open Science Framework (OSF), and Cochrane. We also examined bibliographies of major reviews and searched for non-journal publications, such as government reports.

The selection criteria that were applied to search terms was based on:

- Type of studies - systematic reviews only
- Types of participants - adults 18 to 65 years old
- Types of interventions - recovery-oriented approaches
- Types of outcome measures -

  Critical outcomes:
  - Drug consumption
  - Harm from drug use

  Important outcomes:
  - Adverse effects
  - Psychosocial functioning
  - Overall quality of life
- Published language of study - any language
- Date range - 2012 - 2022

PubMed: 2,530 studies were found - 59 selected for abstract reading by title and 24 for full-text evaluation after abstract reading.

- Terms: Recovery-oriented practices OR Recovery Management Check-ups OR Cycle of relapse OR Treatment re-entry and recovery OR Recovery management AND Substance use disorder OR SUD AND "systematic review"
- Additional search terms: ((((((recovery) OR (recovery-oriented practices)) OR (housing)) OR (employment)) OR (recovery self-assessment)) OR (recovery management check-ups)) AND (substance use disorders)

PsycInfo: 13 results, 1 eligible for full text evaluation;

Embase: 69 results, 6 eligible for full text evaluation;

Terms:

- #1 AND 'systematic review'/
- #2 ('recovery'/exp OR recovery) AND ('substance abuse disorder' OR (substance AND ('abuse'/exp OR abuse) AND ('disorder'/exp OR disorder)))

Science Direct - 42 results, 4 eligible for full-text evaluation;

Lilacs - 89 reviews found, 18 selected for full-text evaluation after abstract reading;

SCOPUS - 0 articles

African Index Medicus - 9 results, 1 eligible for full-text evaluation

Index Medicus for the South-East Asian Region - 2 results, 0 eligible.

- Terms: (recovery) AND (substance use disorders) AND (type_of_study: ["systematic_reviews"])

2.3. Data collection and analysis

As the first stage in selecting relevant studies, records were retrieved from the bibliographic databases and other sources are recorded and assessed for eligibility by examining their titles and abstracts only. This assessment was performed following the inclusion and exclusion criteria developed a priori. The full text of articles that were potentially relevant based on their titles and abstracts was retrieved and examined in light of the inclusion criteria in the second stage of study selection. Data from eligible studies were then extracted into pre-defined templates that generally included the study design's characteristics and population, intervention, comparator, and outcomes. To ensure accuracy, a team of two researchers was responsible for independently assessing the eligibility of the studies identified and extracting data from the reports. The flow of articles throughout the search and up to the final cohort of included studies is depicted with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram, which includes the number of excluded articles and the reasons for any exclusions. The total of screened records (title and abstract) was 221, of which 48 were selected for full text evaluation. Ultimately, 26 reviews met the inclusion criteria and were selected as basis for this guideline, plus 2 pre-existing guidelines (SAHMSA). The final analyses and recommendations were reviewed and agreed upon by the five person research team.

2.4. Selection and coding of identified records

All identified reviews were added to a Collection on Mendeley Reference Manager. Each of the nine databases was categorized in individual groups within that Collection, allowing the researchers to access and analyse whether the reviews met the criteria for inclusion described in the topics above. A copy of the reference library in electronic format (without attached pdfs of included publications) is supplied in the appendix.

2.5. Quality assessment

Quality of the included systematic reviews was assessed using the AMSTAR quality appraisal tool https://amstar.ca/Amstar_Checklist.php and is supplied in the appendix.

2.6. Analysis of subgroups or subsets

- **Digital Recovery support -** 3 reviews, 1 excluded - 02 review for full-text evaluation; **02 met inclusion criteria.**
- **User-involvement/oriented care models:** spiritual/religious interventions; role of self-care; mindfulness-based therapies; physical exercise; Psychological flexibility-based intervention; Occupation Therapy - 11 reviews, 3 excluded: 08 retained for full-text evaluation; **05 met inclusion criteria.**
- **Employment and Individual Placement and Support (IPS):** 12 reviews, 4 excluded, 8 reviews retained for full-text evaluation + 01 guideline; **03 met inclusion criteria + 01 guideline.**
- **Peer Recovery Support:** 19 reviews, 5 excluded, 14 retained for full-text evaluation + 01 guideline; **11 met inclusion criteria + 01 guideline.**
- **Long-term approaches -** 6 reviews, 1 excluded, **5** retained for full-text evaluation; **03 met inclusion criteria.**
- **Housing -** 11 reviews, 6 excluded, **5** retained for full-text evaluation; **02 met inclusion criteria.**
- **Family Support -** 3 reviews, 1 excluded, **2** retained for full-text evaluation + 01 guideline; **none of the reviews met inclusion criteria.**
- **Other** (reviews of conceptual definitions): 2 papers retained for full text evaluation – not included in GRADE tables.

3. Results

3.1. Systematic reviews and/or studies identified by the search process

3.1.1. Studies screened – title and abstract

PubMed:

- (Akanbi et al., 2020a, 2020b; Alessandrini et al., n.d.; Apostolidis et al., n.d.; Austin et al., 2021a; Beck et al., 2017a, 2017b; Beraldo et al., 2019; Bjornestad et al., 2020a; Broekaert & Vanderplasschen, 2003; Carvalho & Furtado, 2022; Collins, 2016; Cosottile & DeFulio, 2020; Cucciare et al., 2009; de Oliveira et al., 2020; Dennis et al., n.d.; Derefinko et al., 2018; Donovan et al., 2013; Epidemiology and Psychiatric Sciences, n.d.; Multimedia Appendix 2. Intervention Retention, Feasibility and Effects, n.d.; Participation Preferences, n.d.; Fries & Rosen, 2011; Galaj et al., n.d.; Giménez-Meseguer et al., 2020; Greenfield et al., 2014; Gruber & Fleetwood, 2004; Harrison et al., 2020a, 2020b; Hellström et al., 2021a, 2021b; Henkel, 2011; Ingram et al., 2020; Jason et al., 2001, 2007; Kerman et al., 2021; Kirst et al., 2020; Linke & Ussher, 2015a, 2015b; Magura et al., 2004; Magura & Marshall, 2020a; Mahboub et al., n.d.; Marsch, 2012; Mccollister et al., 2012a, 2012b; McLellan et al., 2005; Meara, 2006; Miguel et al., 2019; Rash et al., 2017; Reif et al., n.d., 2014; Reif, George, Braude, Dougherty, Daniels, Sushmita Shoma Ghose, et al., 2014; Renbarger et al., 2020a; Room, 1998; Rosenberg et al., 2020; Rudolph et al., 2018, 2021; Russell Schutt et al., 2021; Sobell et al., 2000; Valeri et al., 2018; Watson et al., n.d.; Wienemann & Wartmann, n.d.)

LILACS

- (Bassuk et al., 2016; Bjornestad et al., 2020b; de Andrade et al., 2019; Eddie et al., 2019; Giménez-Meseguer et al., n.d.; Harrison et al., 2020c; Inanlou et al., n.d.; Kim et al., 2021; Magura & Marshall, 2020b; Moe et al., 2021; Orsolini et al., 2019; Pedroza Molina et al., 2020; Penzenstadler et al., 2019; Reif et al., 2014; Reif, George, Braude, Dougherty, Daniels, Ghose, et al., 2014a, 2014b; Renbarger et al., 2020b; Sanchez & Nappo, 2007; Sancho et al., 2018; Secades-Villa et al., 2020; Tracy & Wallace, 2016; Vest et al., 2021a, 2021b; Walton-Moss et al., 2013; Wasmuth et al., 2016)

PsycInfo:

- (Beaulieu et al., 2021)

Embase:

- (Bielenberg et al., 2021; Chinman et al., 2014; du Plessis et al., 2020; El-Guebaly, 2012; McGuire et al., 2014; Prochaska et al., 2004)

Science Direct

- (Austin et al., 2021b; Linke & Ussher, 2015c; Spiehs & Conner, 2018)

African Index Medicus

- (Steyn et al., 2019)

Index Medicus for the South-East Asian Region

- No results

3.1.2. Reviews that ultimately met the inclusion criteria after full text evaluation/included in GRADE tables

PubMed:

- (Akanbi et al., 2020; Ashford et al., 2020; Beaulieu et al., 2021a; Beck et al., 2017; Beraldo et al., 2019; D Arnett, 2016; Eddie et al., 2019; Fries & Rosen, 2011; Giménez-Meseguer et al., 2020; Harrison et al., 2020; Reif, George, et al., 2014)

Lilacs:

- (Bassuk et al., 2016; de Andrade et al., 2019; Magura & Marshall, 2020; Orsolini et al., 2019; Penzenstadler et al., 2019; Reif, Braude, et al., 2014; Sancho et al., 2018; Tracy & Wallace, 2016; Vest et al., 2021; Walton-Moss et al., 2013; Wasmuth et al., 2016)

Science direct:

- (Austin et al., 2021; Nesvåg & McKay, 2018)

PsycInfo:

- (Beaulieu et al., 2021b)

Embase:

- (du Plessis et al., 2020)

3.2. List of studies included and excluded

3.2.1. Included in GRADE tables/footnotes

Table 1. List of studies included in GRADE tables

Serial Number	Intervention/ Comparison	Outcomes	Systematic reviews (Name, Year)	Justification/Explanation for systematic review
1- DOI: 10.1002/hbe2.148 2- DOI:10.2196/jmir.9873	**Digital recovery support services** X in person only	Substance use/ treatment retention	**Ashford R, 2019** **Nesvåg S, 2018**	There are people that avoid seeking face to face treatment for SUDs and so are more susceptible to relapse; if technology-based digital recovery support services (D-RSS) can increase the reach of SUD interventions, it may improve SUD recovery related outcomes.
DOI: 10.1016/j.jsat.2015.11.011	**User-involvement/oriented care models: Occupation therapy**	Reduction in substance use/ symptoms severity	**Sally Wasmuth, 2016**	Addictive disorders disrupt individuals 'occupational lives, therefore occupational therapy can be an important strategy for addiction recovery.
DOI: 10.3389/fpsyt.2018.00095	**User-involvement/oriented care models Mindfulness-Based Interventions**	Addiction-related symptoms (severity, abstinence and craving)	**Sancho M, 2018**	Given the difficulty patients with SUD have approaching emotion and its relation with relapses, therapies aiming this aspect, including Mindfulness-based Relapse Prevention, Mindfulness Training (MT) for Smokers (MTS), or Mindfulness-Oriented Recovery Enhancement [MORE] can be an important tool.
DOI: 10.3390/ijerph17103680	**User-involvement/oriented care models - Physical Exercise**	Substance consumption and craving, quality of life	**Giménez-Meseguer, J, 2020**	Since recovery approaches are not focused only on achieving mere abstinence, but also try to recover the quality of life of the patient and their physical and mental health, performing physical exercise can be an effective tool to help.

Serial Number	Intervention/ Comparison	Outcomes	Systematic reviews (Name, Year)	Justification/Explanation for systematic review
1- DOI: 10.1097/JAN.0000000000000001 2- DOI: 10.2174/1874473711666180612075954	**User-involvement/oriented care models: Spiritual interventions** x TAU	Abstinence Aggressiveness	**1-Walton-Moss, B, dec 2013** **2 - Beraldo L 2019**	SUD has multifactorial aetiology and there is plenty of non-conventional approaches available. Therefore, spiritual based approaches need to be studied and its effectiveness evaluated.
DOI: 10.1016/J.ADDBEH.2021.106992	**User involvement/oriented care: college programming**	Reduction in substance use/abstinence	**Vest, N, 2021**	This specific population has a high rate of SUD prevalence, hence the need for programs targeting college students' recovery.
1- DOI: 10.1080/10826084.2019.1692035 2- DOI: 10.1080/10826084.2020.1797810 3- DOI: 10.1002/1348-9585.12133	**Individual Placement and Support Employment Intervention** x TAU (waiting list)	Social Functioning Reduction in substance use	**1- Harisson, J. 2019** **2- Magura, S 2020** **3- Akanbi M 2020**	Employment can contribute to SUD recovery, enhance mental well-being so it is an important field for evaluating Recovery outcomes.

Serial Number	Intervention/ Comparison	Outcomes	Systematic reviews (Name, Year)	Justification/Explanation for systematic review
1-DOI: 10.1080/14659891.2021.1912201 2- DOI: 10.3389/fpsyg.2019.01052 3 - DOI: 10.3389/fpsyt.2019.00186 4- DOI: 10.1016/j.drugalcdep.2021.109123 5- DOI: 10.1080/14659891.2019.1677794 6- DOI: 10.2147/sar.s81535 7- DOI: 10.1016/j.jsat.2016.01.003 8- DOIi: 10.1176/appi.ps.201400047 9- DOI:10.1037/adb0000237	**Recovery oriented systems of care: Peer recovery support services (PRSS), case management, assertive community treatment (ACT)** x TAU	-Abstinence (all) -Adherence to treatment (6) -Risky Behaviour (6) - Psychosocial functioning - Overall quality of life	**1- Ayuk Nyakpo Orock, 2021** **2- Eddie D, 2019** **3- Vanderplasschen 2019** **4 - Gormley, Mirinda Ann 2021** **5- du Plessis, C, 2020** **6- Tracy K 2016** **7- Bassuk 2016** **8- Reif S, 2014** **9 - Beck A 2017**	Community reinforcement approach is linked to the importance of valued social roles in maintaining abstinence, which is the foundation of the peer support relationship and can be an important approach in the path to Recovery.
1- DOI: 10.1016/J.SOCSCIMED.2021.114289 2- DOI: 10.1016/J.DRUGALCDEP.2019.03.031 3 - DOI: 10.1159/000496742	**Long term treatment/ community treatment** X short term approaches	Abstinence	**1- Beaulieu, M., 2021** **2- de Andrade D, 2019** **3 - Penzenstadler, L, 2019**	Substance use disorders are a chronic condition that calls for a shift to long term approaches and support.
1- DOI: 10.1176/appi.ps.201300243 2- DOI: 10.1016/J.ADDBEH.2021.107076	**Housing**	Substance use outcomes	**1 - Reif S, 2014** **2 - Austin A 2021**	Homelessness and housing distress are social issues known to be related to worse outcomes for SUD. Therefore, is crucial to evaluate the effect of this type of intervention on substance use treatment outcomes, above all the recovery-oriented ones.

3.2.4. Excluded from GRADE tables/footnotes

Table 2. List of studies excluded from GRADE tables

Serial Number	Systematic reviews (Name, Year)	Justification/Explanation for systematic review
10.1097/ADM.0b013e31823ae540	The **Meanings of Recovery** from Addiction Evolution and Promises, El-Guebaly, N. Journal of Addiction Medicine, (2012), 1-9, 6 (1)	This review focuses on the evolution of the definition of the concept of "recovery from addiction" and the historical development of this approach, hence it is not suited for impact analyses in outcomes but contributes to the theoretical foundation of the guideline.
PMID: 32426014; PMCID: PMC7215253.	**Addiction Recovery**: A Systematized Review. Inanlou M, Bahmani B, Farhoudian A, Rafiee F. Addiction Recovery: A Systematized Review. Iran J Psychiatry. 2020;15(2):172-181.	This review intends to clarify the concept known as recovery to contribute to "an appropriate intervention and research". Since there is no intervention or outcomes analysed for size effect, this study was used as a theoretical basis of conceptual terms.
http://store.samhsa.gov.	Substance Abuse and Mental Health Services Administration: Substance Use Disorders Recovery with a Focus on **Employment and Education**. HHS Publication No. PEP21-PL -Guide-6 Rockville, MD: National Mental Health and Substance Use Policy Laboratory. Substance Abuse and Mental Health Services Administration, 2021.	The Substance Abuse and Mental Health Services Administration (SAMHSA) guide is based on evidence based practices of peer-reviewed models regarding practices related to employment and workforce training for individuals in recovery from a substance use disorder.
http://www.samhsa.gov/shin	Sheedy C. K., and Whitter M., Guiding Principles and Elements **of Recovery-Oriented Systems of Care:** What Do We Know from the Research? HHS Publication No. (SMA) 09-4439. Rockville, MD: Centre for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 2009.	SAMHSA's 12 guiding principles of recovery and the 17 elements of recovery-oriented systems of care developed through the National Summit on Recovery – used for theoretical and conceptual purposes.
http://dx.doi.org/10.4172/2155-6105.1000280	**User-involvement/oriented Care Model**s and Substance Use Disorder Care: Review of the Literature. Arnett, J Addict Res Ther 2016, 7:2	It is not possible to determine de effect or impact of this intervention since the review focuses mostly on conceptual definitions and protocols for developing this approach.

Systematic review: Digital recovery support services used to support substance use disorder recovery
Robert D. Ashford, Brandon G. Bergman, John F. Kelly, Brenda Curtis, Hum Behav & Emerg Tech.2019; 1–15

Digital recovery support services (D-RSS) are recovery support services (RSS) that are delivered via technological platforms such as smart phone applications (or "apps"), websites and forums, and social network sites and networking platforms. D-RSS are a new tool in the SUD and recovery approach, with preliminary evidence suggesting that it may help to improve accessibility, availabilityy and cost. The inclusion criteria for this review consist of studies between 1985 and 2019, published in English, where participants needed to have a SUD and also needed to have access to digital platforms and applications providing RSS – not only treatment or prevention, but only recovery support (including aftercare). It was found 22 studies: the participants were almost equal in terms of gender (56% female), although the majority was white (73%). The methodology of the studies included was most (n = 18) either observational (i.e. naturalistic research of individuals using a D-RSS) or qualitative methodologies. The minority of studies (n = 4) was randomized control trials, described as follows: "1- Campbell, Hester, Lenberg, and Delaney (2016) – RCT: Digital website, module-based learning – based in SMART Recovery. The digital support (Overcoming Addiction website modules) produced similar outcomes to the in-person SMART recovery meetings (reduced drinking, increase in days abstinent). Participants were not likely to use OA by itself (only 22 participants engaged in OA by itself), but rather as a supplement. Gonzales 2016, RCT: SMS text (daily): after treatment, compared to post-treatment services as usual, SMS-group less likely to relapse (any recurrence of use of their primary substance from baseline) and reported less substance use problem severity and higher likelihood to engage in recovery-oriented behaviours. Gustafson at al, 2014, RCT: ACHESS smartphone application with ecological momentary interventions -- or the 8 months of the intervention and 4 months of follow-up, patients in the ACHESS group (app+ aftercare as usual) reported significantly fewer risky drinking days than patients in the control group; ACHESS group had higher rates of engagement than aftercare as usual. McTavish, Chih, Shah, and Gustafson 2012, RCT: ACHESS smartphone application: participants with AUD and DUD used application more frequently than those with AUD only, while those with mental health disorders used less (but still 70% at follow-up); rates of use for all participants was high."

The results, despite the poor methodology in most of the studies, show a tendency towards positive feasibility, as several of them found low attrition and high engagement among participants (Bergman et al., 2017; Gustafson et al., 2014; McTavish et al., 2012; Sinclair et al., 2016). The majority that used observational designs did not examine the effects of D-RSS participation, but "rather describe change over time (i.e. longitudinal) or ask participants to report retrospectively at one point in time (i.e. cross-sectional)." Among the few ones with an experimental design, websites, text messaging services, and smartphone applications were studied (Campbell et al., 2016; Gonzales et al., 2016; Gustafson et al., 2014; McTavish et al., 2012) and engagement and participation had a positive effect on percent days abstinent from the individual's primary substance, percent days risky drinking, and reduction in alcohol-related consequences. "Observational studies on R-SNS and public social networking sites found relationships measured cross-sectionally (i.e. correlations) between D-RSS use and high satisfaction (Bergmanet al., 2017; Kirkman et al., 2018), improved social support (Sinclairet al., 2016; Yoo et al., 2018), perceived benefit from using the service (Bergman et al., 2017), and reductions in stigma (Bliuc et al., 2018). Additionally, observational studies highlighted that engagement and benefit may be moderated by participant characteristics such as recovery length and recovery pathway (Bergman et al.,

smartphone-based D-R33 have yet to be studied with precise methodology and little is known about their comparable efficacy, despite the correlation with user satisfaction and overall better SUD recovery outcomes.

Feasibility and Effects of Digital Interventions to Support People in Recovery from Substance Use Disorders: Systematic Review
Nesvåg & McKay, J Med Internet Res 2018; 20(8): e255

This review sorts the interventions in two main categories: simple and complex. Thirteen of the 18 simple interventions are integrated in other treatment or support systems, mostly delivered as mobile phone apps, while 6 of the 10 complex interventions are designed as stand-alone interventions, often delivered on a platform combining desktop/Web and mobile phone technologies. Among the 24 studies of 18 simple interventions included the review, 7 had control groups and showed positive effects on substance use outcomes. Another 9 studies either did not include a control or did not examine substance use outcomes. These results indicate that 7 of 15 studies with control conditions (47%) exhibited positive effects on SUD outcomes. When considered at the level of the interventions, 7 positive results were found in at least 1 study, whereas 7 produced negative results in 1 or more studies with no positive results in other studies (i.e. 50% of interventions positive). The interventions in the 7 positive studies all had moderate effect size advantages. The control conditions were usually treatment as usual without the digital component. Between 70% and 90% of the participants found the interventions to be useful and easy to use. The rates of sustained use were also generally high, except for simple interventions with an open internet-based recruitment and some information and education modules of the complex interventions. Studies testing complex interventions, on the other hand, generated positive effects in 64% of studies with control groups, with 67% of the interventions producing positive effects in 1 or more studies. However, studies of simple interventions were more likely to include stronger control conditions than studies of complex interventions, so presumably the results can be considered more accurate.

The review showed, also, that a few studies reported on anything other than changes in substance use, so no other recovery outcome can be analysed. In general, these results do not provide consistent support for the efficacy of these interventions. They are, however, largely feasible, despite the heterogeneity in results, with some interventions appearing to be more promising than others, which indicates that more research is needed to better understand the characteristics of efficacy digital recovery support.

3.3.2. User-involvement/oriented care models

3.3.2.1. Occupational therapy

Occupation-based intervention for addictive disorders: A systematic review
Wasmuth, S., Pritchard, K. & Kaneshiro, K.,Journal of Substance Abuse Treatment (2015)

The review defines the scope of the intervention as: “Occupation-based interventions are those in which an occupation is performed, and occupations are defined as those activities a person engages in to structure time and create meaning in one ‘s life. Occupation-based interventions may appear in a number of different disciplines including art therapy, music therapy, vocational therapy, drama therapy,

Sacks et al. (2012) and Rowe et al. (2007). Small but significant effect sizes (Cohen, 1992) were found in other studies (Kashner et al. 2002, Vedamurthachar et al.2006, and Albornoz et al. 2011). It was possible to establish that leisure interventions produced larger effect sizes than social participation interventions. The area of work was also used as an intervention of interest, and significant between group' differences were found in the areas of drug and alcohol consumption.

The authors conclude that: "A key finding of this review is that all social participation interventions found significant between group differences favouring social participation over the control or comparison group. However, ASI and BDI effect sizes of social participation interventions were poor (Cohen, 1992). By contrast, interventions in the areas of work and leisure had mixed results; some elicited significant between group differences favouring the occupation-based intervention whereas others did not. However, those that did find a positive ASI or BDI effect elicited greater effect sizes (although still generally small) than the poor effect sizes of social participation interventions. While ASI and BDI effect sizes of social participation, work, and leisure were poor to small, considering the non-invasiveness, low cost, and ease of access of occupation-based interventions, the fact that work, leisure, and social participation can elicit small but positive effects in the lives of individuals is compelling. Such interventions may be easily integrated into the daily lives of those seeking treatment."

3.3.2.2. Physical Exercise

The Benefits of Physical Exercise on Mental Disorders and Quality of Life in Substance Use Disorders Patients. Systematic Review and Meta-Analysis.
Jorge Giménez-Mesegue et al., J. Environ. Res. Public Health2020, 17, 3680.

The studies included in this review measured the acute effects or long-term effect (≥2 weeks) of exercise in patients who met criteria for alcohol use disorders or substance use disorders. Among the 59 studies, 24 included only AUD patients, 15 patients with different substances disorders, describing groups among which are AUD or SUD patients, eight on methamphetamine dependence, five on heroin or opioids dependence, four on studies cocaine or "crack" dependence, two studies on stimulants dependence, including patients who met criteria for cocaine, amphetamines or methamphetamines dependence and one study on cannabis dependence.

Concerning quality of life, were include 10 studies which specifically analysed the influence of exercise on this outcome: five of them used yoga as an experimental treatment, a study uses tai chi, two studies applied a program of mixed exercise and aerobic exercise and another study usea varied exercise program. Among these 10 studies, eight obtained significant improvements in quality of life after participation in the program, while in there were no significant improvements in two studies.

In what regards substance use, 25 studies that analysed the effect of exercise on aspects related to abstinence/consumption and/or the impulse to consume (craving). Among them, 17 showed statistically significant improvements in craving, while in seven studies there were statistically significant improvements, or these improvements were intra-group but not between groups, so it can be stated that exercise has a positive influence on craving. Additionally, the results of this review tend to indicate benefits of the exercise on abstinence and drug use in multiple studies that show adequate results in abstinence or drug consumption after engaging in exercise programs. However, there are also several studies that contradict this finding. The reason for this disparity could be due to small sample sizes or

3.3.2.3. Mindfulness-based Therapies

Mindfulness-Based Interventions for the Treatment of Substance and Behavioral Addictions: A Systematic Review
Marta Sancho, Front. Psychiatry 9:95. doi: 10.3389/fpsyt.2018.00095

This review seeks to analyse the interventions target at emotion regulation and how they can improve SUD outcomes. The focus of interest of this guideline being the aspects related to Mindfulness-Oriented Recovery Enhancement (MORE). The inclusion criteria for the studies were: (1) participants with SUD (2) all ages, (3) include quantitative data supported by statistical methodology, (4) inclusion of a control group not receiving MBIs, (5) published in English, and (6) randomized controlled trials. Between all types of mindfulness-oriented interventions, 54 studies were included. When only MORE intervention is considered, 5 RCT were found, the type of addiction Alcohol, Opioid and other substances altogether. The tome of follow-up was 7–12 weekly sessions with a duration of 1–3 h per session. MORE intervention was associated with modest statistically significant improvements in craving, and positive and negative effect from pre-to-post treatment versus the CBT group. The authors conclude that: "The revised literature gives support to the effectiveness of the MBIs. These treatments are adequate to reduce dependence, craving, and other addiction-related symptoms as well as to improve mood state and emotion dysregulation. There are certain interventions that presented better results in the treatment of addiction such as MBRP, MTS, or MORE".

3.3.2.4. Spirituality

Spirituality, Religiosity and Addiction Recovery: Current Perspectives
Beraldo, L et al. Current Drug Research Reviews, 2019, 11, 26-32

The review highlights some aspects of the relation of spirituality with SUD, as follows: "Local culture and spirituality have been shown to be influencing factors in the recovery of individuals with SUDs. However, more studies are needed to identify the mechanisms by which religiosity exerts this protective influence. In fact, they may be part of those motivational and behavioural factors (intrinsic and extrinsic) which may lead to a change in life of people with SUDs. Also, these variables can influence motivation and readiness for changing along with personal values, decision-making, way of living." Despite these affirmations, regarding statistical data on the subject, there are only a few prospective studies, with most evidence being retrospective, including ones that support the evidence that spirituality has a positive influence on patient recovery. Specifically, this intervention seems to be a decisive factor in managing disorders of alcohol use, although the effect is not equally significant for all subpopulations: the patients that seem to have beneficial effect are those with a religious culture and/or tendencies.

Overall, the evidence in this review shows that aggressiveness, which is a very prevalent symptom in the studied population, seems to be positively affected by a higher level of spirituality. Additionally, spirituality does not seem to play a beneficial role in subgroups such as patients with crack and cannabis use disorders, being a more favourable influence only on alcohol use disorders - subgroup in which there is most evidence, however it is still small and with little to no statistical value. The authors also emphasize that "spiritual-based intervention should not replace the conventional health treatment for SUDs. Probably, a combination of these treatments can be a beneficial alternative for minorities and

This review gathered 29 eligible, grouping the findings according to whether the study's focus was on alcohol only or alcohol and other drug use. The most common treatment outcome was abstinence followed by treatment retention, alcohol or drug use severity, and discharge status. There were seven studies that researched S/R in the context of either AA or 12-step programs, which is not in scope of this guideline. There were 22 studies whose intentions were not AA or12-step programs related. Among these, nine focused only on alcohol abuse (Krentzman et al., 2010; Piderman et al.,2007, 2008; Pringle et al., 2007; Robinson et al., 2007; Roland& Kaskutas, 2002; Sterling et al., 2006; Stewart et al., 2008;Walker et al., 1997), and 13 focused on multiple substance use (Avantsetal.,2001; Carter,1998; Christo & Franey, 1995; Chu & Sung, 2009; Connor et al.,2008; Heinz et al., 2007; Jarusiewicz, 2000; Johnsen, 1993; Richard et al., 2000; Shields et al., 2007; Stahler et al., 2007;Stewart, 2008; Wolf-Branigin & Duke, 2007). The most often studied outcome was abstinence.

Regarding the multiple substance group of 13 studies, there was supporting evidence for the association between S/R and treatment outcomes. Only two of these studies found no significant relationships between S/R and drug use. However, the majority of the studies that supported a positive association between S/R and treatment outcomes were cross-sectional, none of them had a sample size larger than 63, and only one of them had a Bayesian analysis (Wolf-Branigin &Duke, 2007), as the others just showed statistical analysis through bivariate tests. When analysing for specific kinds of substance, the results varied depending on the individual's primary substance problem. Among users of crack/cocaine, increasing church attendance (from baseline to follow-up) was associated with less reported drug use. Among persons for whom alcohol was the primary problem, increasing church attendance and increases in 12-step program attendance were significant predictors of reduced alcohol use. There were no significant predictors for marijuana users.

As the authors conclude: "the evidence suggests at least some support for a beneficial relationship between S/R and recovery from substance use disorders. In most of the studies, treatment participants were usually middle aged. Notably, adults aged 18Y25 years have the highest rates of substance dependence and abuse among all adult age groups (SAMHSA, 2011). Unfortunately, this age group was poorly represented in these studies. For most studies, we found evidence suggesting at least some support for a beneficial relationship between spirituality or religion and recovery from substance use disorders."

3.3.2.5. College Programming

College programming for students in addiction recovery: A PRISMA-guided scoping review
Vest, Noel et al, 2021. Addictive Behaviors, (2021), 1069992, 121.

Given that the number of college students that describes themselves as being in recovery from an alcohol and/or other drug use disorder being significant (600,000, according to the ACHA-NCHA II, 2019; National Centre for Education Statistics, 2017; Substance Abuse and Mental Health Services Administration, 2019), this reviews aims to address the importance and effectiveness of programs focusing on this populations, such as Collegiate recovery programs (CRPs), that create a recovery-friendly campus environment through peer support, on-campus mutual-help meetings, recovery/sober housing, alcohol/drug-free events, counselling staff, and dedicated student drop-in centres (Bugbee et al., 2016). Starting with this background, this review searched for recovery-oriented (i.e. programming or services related to SUD recovery) that focused on college students, and "reported thorough

(35%). To be included in this category, the studies should include withdrawal potential, biomedical conditions, mental health, readiness to change, relapse/continued use. The most frequent outcome examined in this subgroup was reduction in substance use/abstinence: 8 of 19 (42%). The non-clinical outcomes were: academic performance, vocational expectation, nutrition, reduction in stigma. The results indicate that the intervention studied may be positive for helping students maintaining abstinence (Bennett, McCrady, Keller, & Paulus, 1996; Botzet et al., 2008; Brown et al., 2019; Cleveland et al., 2007; Laudet et al., 2015). Concerning psychosocial functioning, CRP participations was associated with higher GPA (3.2 for CRP students compared to 2.9 overall at Texas Tech University), retention in school, and graduation rate compared to students not involved with this approach in the same schools. These finding offer some moderate evidence in favour of CRP when assessing efficacy in educational attainment (Ashford, Brown, & Curtis, 2018; Botzet et al., 2008; Cleveland, Harris, Baker, Herbert, & Dean, 2007; Harris, Baker, Kimball, & Shumway, 2008; Watts, Tu, & O'Sullivan, 2019; Moore, 1999). The authors discuss that: "These observational findings need replication but have encouraging implications for college administrators and researchers. Nearly all of the studies to date have used either observational or qualitative research designs. Like many other emergent literatures, randomized clinical trials generating efficacy estimates are rare in the CRP literature. The lack of international studies on programming relating to university students in recovery suggests that CRPs may not be flourishing at the same rate in countries outside the US. The available evidence on CRPs is minimal when compared to the extensive literature base on prevention and reduction of substance use on college campuses. Given such a disparity and the growing need for recovery-oriented services on college campuses, evaluations of CRP effectiveness are needed."

3.3.3. Employment and individual Placement and Support (IPS)

The Effectiveness of Interventions Intended to Improve Employment Outcomes for Persons with Substance Use Disorder: An Updated Systematic Review
Stephen Magura & Tina Marshall, Substance Use & Misuse, DOI: 10.1080/10826084.2020.1797810

This systematic review aims to evaluate interventions intended to improve employment outcomes in persons with SUD and includes articles published in 2005–2018. The inclusion criteria were: "a minimum of a quasi-experimental evaluation design reporting employment outcomes that included a control or comparison group; or a design or analysis capable of isolating the effects of the intervention and studies conducted within the U.S", finding 14 eligible studies that covered nine models of interventions: Individual Placement and Support (IPS), Customized Employment Supports (CES), Coordinated Care Management/Intensive Case Management (CCM), Oxford House, The Therapeutic Workplace (TW), Community Restitution Apprentice-Focused Training(CRAFT), Drug Court Employment Intervention, Job Seekers Workshop (JSW), Integrated Interpersonal Cognitive Problem Solving (Integrated ICPS). The authors highlight that: "Statistically significant intervention effects for at least one employment-related outcome, conventionally defined as $P < 0.05$ (two-tailed test), were reported by 11 out of the 14studies in the current review and a probable significant effect was reported by one additional study (although no actual calculation was included). However, it must be recognized that in most studies the magnitude of effects on employment must be characterized as small. The intervention that appears to have the most empirical support based on the number of studies or datasets showing significant effects, is Individual Placement and Support, including its variant Customized Employment Supports" and "appears to be three elements that are common among most of those interventions showing significant

10.1080/10820084.2019.169203

The review explains the characteristics of IPS on SUD, such competitive employment, systematic job development, rapid job search, integrated services, benefits planning, zero exclusion, time-unlimited supports, and worker preferences (Becker, Swanson, Reese, Bond, &McLehman, 2015; "What is IPS" 2019), with zero exclusion and rapid job search for competitive jobs having a strong association with employment outcomes for the SUD population (Majura et al., 2007; Mueser, Campbell, & Drake, 2011; SAMHSA, 2019).

Concerning the methodology chosen for a grading the evidence, RCT were considered to provide a high level, and > 3 RCTs indicated the highest level. The results turned out to be: five randomized controlled trials completed one co-occurring or single SUD population showing the most significant effects (Cook et al., 2007; LePage et al., 2016; Lones et al., 2017; Mueser et al., 2011; Rosenheck & Mares, 2007) utilized IPS, or its precursor, Evidence-Based Supported Employment. Since there are still only a few studies using adequate methodology, non-randomized trials were also collected for supplementary qualitative data and it was shown that there were improvements in employment, although also some obstacles are to be considered, such as the fact that some providers perceive the duration of SUD treatment as too brief for the program (since it usually is days/weeks and little follow-up in the long term), the mistaken perception that the risk of relapse may be grater if the patient is employed (because there's money earned that can be spent), when these patients indeed may engage more in SUD treatment/services, and finally the criminal justice involvement and housing instability. The authors conclude that: "Providers do not prioritize employment for people with behavioural health conditions, and treatment often focuses on minimizing distressing symptoms. Not only that, but many people hold prejudicial assumptions about those diagnosed with SUD, including doubts about their capabilities, perceptions that they can't cope, will only use earnings on substances, and fears that they will demonstrate behavioural instability (Essen, 2012). Evidence included in the current review may dispel perceptions that individuals with SUD cannot succeed in competitive employment settings. It also provides data, which indicates that integrating IPS with SUD is not only feasible, but also beneficial to multiple systems of care".

A systematic review of the effectiveness of employer-led interventions for drug misuse
Akanbi MO, Iroz CB, O'Dwyer LC, Rivera AS, McHugh MC. J Occup Health. 2020;62:e12133.

This review intended to investigate the effect of employee education, drug testing, employee assistance programs, supervisor training, written work-place drug-free policy, and restructuring employee health benefit plans (categories recommended by SAHSA) in reducing harm from opioids and other drugs. It was found a total of 27 studies, in which 4 were RCTs, 9 were quasi-experimental and 14 were observational. The results showed that, when analysing employee education, the "six evaluations of investigation of its effectiveness in reducing employee drug use, two studies reported a significant reduction in illicit drugs among employees exposed to an educational intervention while four studies did not find this intervention to be effective and of four analyses of RCTs did not find a stand-alone educational intervention to be effective.". When evaluating drug testing, 15 studies assessed this intervention and, of these, 5 focused on the relation with drug use. The results found were very heterogeneous, since two of five reported that drug testing was associated with a reduction in drug misuse (both of them had poor methodology). The other 3 of these 5 found no correlation between

evaluations of employer-led efforts to prevent or reduce the ill effects of substance abuse disorder. As a result, there are limited evidence-based strategies for employers to consider for addressing substance use. More employer-led experimentation, employer-researcher and employer-public health partnerships, and mixed methods evaluations may help to expand the evidence base."

3.3.4. Recovery-oriented systems of care (ROS)

A meta-analysis of the efficacy of case management for substance use disorders: A recovery perspective
Wouter Vanderplasschen Richard C. Rapp, Jessica De Maeyer and Wim Van Den Noortgate, Frontiers in Psychiatry, April 2019 | Volume 10 | Article 186

The authors explain the background of the method as follows: "Case management is a client-centred approach to improve the coordination and continuity of service delivery, especially for persons with substance use disorders (SUD) and multiple and complex support needs. This intervention supports individuals by helping them identify needed services, facilitate linkage with services, and promote participation and retention in services. However, it is questionable whether case management is equally effective in promoting recovery and aspects of personal functioning". Hence, they performed a meta-analysis of randomized controlled trials that assessed the efficacy of this approach when comparing to treatment as usual, identifying 31 studies eligible throughout the search process. The effect size for case management compared to TAU across all outcome categories and moments was small and positive, but statistically significant ($z = 3.34$, $P < 0.001$) with a mean effect of SMD = 0.179 (95% CI: 0.07 – 0.28. The effect of the intervention was analysed through 10 different outcomes, which were categorized into two general groups: (1) treatment tasks (linkage with substance abuse and ancillary services, retention in substance abuse and ancillary services, and attitudes toward treatment) and (2) personal functioning outcomes (substance use, health status, legal involvement, risk behaviour, and social functioning). For treatment tasks, a positive effect size was found in 17 (out of19) trials resulting in a weak to moderate effect in this group, SMD = 0.33, 95% CI: 0.18 - 0.48. Based on separate meta-analyses, estimating the effect sizes for each of the five treatment tasks, the largest effect was found for retention in substance abuse treatment (SMD = 0.47, 95% CI: 0.13 - 0.81). Regarding CM and Personal Functioning outcomes, SMD was considerably small and with no statistical significance (SMD = 0.06, 95% CI: −0.02 to 0.15). Ultimately, the review demonstrates that "case management was significantly more effective than TAU conditions for improving outcomes, although the overall effect was small (SMD = 0.18). The effect size was significantly larger for treatment related tasks (SMD = 0.33) than for personal functioning outcomes (SMD = 0.06), questioning its additional value in individuals' recovery process" - this last questioning being because the most robust effect seems to be restricted mostly to conventional treatment outcomes. This line of questioning is addressed by the authors as follows: Although case management was not found to be directly associated with improved personal functioning, two other mechanisms may be in operation. First, case management may have an indirect effect on separate personal functioning outcomes and overall recovery through its impact on treatment tasks such as linking and retention. Treatment participation and retention are widely documented predictors of remission and recovery. Second, personal functioning outcomes—and eventually recovery—may be enhanced by combining case management with specialized skills and activities (e.g. a strengths approach). Case management may include a variety of direct interventions, ranging from providing information and advice nd substance abuse counselling to being clients' primary therapist in clinical models of case management".

Hoeppner1, Charles Wellstein and John F. Kelly

The justification for this review provided by the authors is as follows: “PRSS, and recovery coaching models are increasingly and rapidly being rolled out in health care settings, despite little empirical knowledge of best practices and sense of to what degree services will help, and for whom. The aim of the present article is, therefore, to report the most up to date research on PRSS through systematic review”. The main criteria of this review included a broad range of terms, given the relative novelty of this line of investigation. All age groups and substances of interest were included, but only peer-review ones with at least one substance use outcome evaluated. The search yielded a total of 24 studies, being seven RCTs, four quasi-experiments, eight single- or multi-group prospective or retrospective studies, and two cross-sectional investigations. “When examining the most robust methodological design, RCTs showed overall, positive effects that appeared small to moderate in magnitude, and null findings were observed for many hypothesized treatment effects.” The authors argue that “Although a strong theoretical case has been made for the potential utility of PRSS in a range of SUD clinical and care settings (e.g. White and Evans, 2014; Laudet et al., 2016), to date PRSS research is limited for specific clinical SUD populations for whom these services are most commonly provided (i.e. those in outpatient, residential and transitional care settings, and recovery community centres)” and “In theory, peer supports such as recovery coaches may have particular utility in hospital and clinical outpatient settings since many individuals with SUD who are not yet engaged in treatment present to these sites with SUD-related medical problems. Peers are uniquely positioned to engage such individuals and help connect them with SUD treatment, either in hospital systems, or the community.”

Peer Recovery Support for Individuals with Substance Use Disorders: Assessing the Evidence
Sharon Reif. PSYCHIATRIC SERVICES, July 2014 Vol. 65 No. 7853.

This review is part of the AEB Series: “The Assessing the Evidence Base (AEB) Series presents literature reviews for 13 commonly used, recovery-focused mental health and substance use services” and describes the Peer Recovery support Services as: “The theoretical basis for peer support, in general, draws on literature in psychology and other fields that highlights the roles of social support, empathy, and therapeutic relationships. It also reflects a long history of mutual support groups for people with substance use and mental disorders”. The studies in the review included two RCTs that employed good methods, four quasi-experimental studies, four studies with pre-post service comparisons and one review.

Unquestionably conclusions about the effectiveness of this intervention are not possible due to the lack of methodologically sound, standardized research. Besides, few studies evaluated quantifiable outcomes such as substance use. As a matter of fact, most of the studies measured process indicators (treatment engagement and the consumer satisfaction). When evaluating on the studies with adequate methodology (the two RCTs) it was possible to say that peer recovery support was associated with positive process indicators and outcomes; particularly, “peer-delivered, one-to-one, brief motivational intervention was related to lower rates of cocaine and opiate use and higher drug-free rates at six months”. Nevertheless, it was not possible to discriminate if the intervention was the main reason to the positive outcome (possible confusion bias).

The authors conclude that: “the studies met the minimum criteria for moderate level of evidence.

Benefits of peer support groups in the treatment of addiction
Kathlene Tracy, Samantha P Wallace. Substance Abuse and Rehabilitation (2016), 143-154, Volume 7

This review examined studies with the following characteristics: 1) adult participants; 2) focused on addiction-related substance use; 3) held in any group format; 4) included randomized controlled trials (RCTs) or studies with pre- and post-data results, and 5) US-conducted studies published in 1999 or later. The final number of studies included was 10. Amitage et al showed that "at 6-month follow-up, most (86%) of 152 participants receiving RAP services indicated on the Government Performance Reporting Act survey abstinence from using alcohol or drugs in the past 30 days, which is much higher than typically noted abstinence levels in this population". Boisvert et al found that Substance use relapse rate reduced (24% – 7%) for participants in the peer support community. Tracy et al found significantly reduced alcohol use ($P < 0.01$) and drug use ($P < 0.01$) from baseline to termination. Latka et al demonstrated that participants in the intervention group were less likely to report distributive risk behaviours at 3 months (OR = 0.46; 95% CI: 0.27 - 0.79) and 6 months (OR = 0.51; 95% CI: 0.31 - 0.83), a 26% relative risk reduction. Velasquez et at found treatment effect was demonstrated over each 30-day period with regard to number of drinks consumed (OR = 1.38; 95% CI: 1.02 - 1.86) as well as the number of heavy drinking days (OR = 1.5; 95% CI: 1.08 - 2.10) over each 30-day period. Marlow et at found significant improvement on two abstinence self-efficacy subscales, negative affect ($P = 0.01$), and habitual craving ($P = 0.003$) and Andreas et al showed Increased self-efficacy and increased family and friend support, quality of life, and feelings of guilt and shame were demonstrated at 12 months from baseline (however no data were was presented). The other studies focused on secondary outcomes such as adherence to appointments.

The authors conclude that "although methodological limitations existed in studies that resulted from previous existing systematic reviews of peer support services, beneficial effects were noted. This article builds upon these reviews by the specificity on peer support groups, which is a common platform in treatment. To the authors' knowledge, this is the first article to date to take such an approach reviewing controlled studies."

Effectiveness of peer recovery support services on stages of the opioid use disorder treatment cascade: A systematic review
Gormley M, Pericot-Valverde I, Diaz L et al, Drug and Alcohol Dependence (2021), 229

This review aims to search the literature on the effectiveness of PRSS interventions on stages of the opioid user disorder treatment. It found 12 papers that met inclusion criteria of which only two of them were randomized control trials and six had control groups. Most PRSS outcomes were heterogeneous and loosely described, involving linkage to treatment (91.7%) or follow-up support (91.7%). Medication for opioid use disorder initiation was reported the most often (66.7%), followed by PRSS engagement (33.3%) and opioid use (25.0%). No studies reported findings for remission. The authors of the review conclude that: "Effectiveness of PRSS interventions on stages of the OUD treatment cascade remain inconclusive. Additional research is necessary before supporting the implementation of PRSS on a broad scale."

A review of literature of peer-based recovery support in substance abuse and the implications for effective implementation in Seychelles
Ayuk-Nyakpo Orock & Georges Nicette, Journal of Substance Use, 2021

problems (Tracy & Wallace, 2016)" The inclusion criteria consisted of: P-BRS focused on patients with SUD, articles peer-reviewed and non-peer-reviewed, written/published between 2015 and 2019. The exclusion criteria being peers were not offering support to people experiencing SUD and published before 2015 or after 2019. Ten studies met the inclusion criteria (Ashford et al., 2018; Bassuk et al., 2016; Best et al., 2017, 2016; Blash et al., 2015; Chapman et al., 2017; Gillespie et al., 2018; Holleran Steiker et al., 2015; Laudet & Best, 2015; O'Connell et al., 2017). These studies reported the effectiveness of P-BRS interventions in SUDs. This effectiveness was established in through "decreased rate of hospitalization, social support from peers, which positively affect the lives of peer supporters (recovery coaches) and those facing SUD, as well as improve treatment outcomes."

Other aspects highlighted as possible additional beneficial aspects of the intervention - besides treatment outcomes - were reducing stigma, maintaining peer recovery coaches' distinct role, empowerment, social support through social network. Hence, the authors conclude that: This literature review indicates that P-BRS is not only promising in assisting recovery in SUD but is also an effective method in reducing relapse occurrence in patients. The existing literature shows that P-BRS decreases the rate of re-hospitalization and provides additional social support, which positively affects the lives of peers and improves treatment outcomes in SUD. Lastly, the review discusses aspects of the implementation of this approach in Seychelles; despite being an important topic of discussion, it is not in scope of this guideline.

Peer-Delivered Recovery Support Services for Addictions in the United States: A Systematic Review Author(s): E.L. Bassuk et al. Journal of Substance Abuse Treatment 63 (2016) 1–9

This systematic review assesses the literature on peer delivered recovery approaches and included studies, published in English, from 1998 to 2014. The authors explain that "the start date for the search (1998) aligns with the year the Recovery Community Services Program was launched marking a milestone for recognizing the importance of the role of peers in delivering recovery support services as an adjunct to treatment (Kaplan, Nugent, Baker, Clark & Veysey, 2010)". The methodology consisted of empirical quantitative studies, but also the quantitative ones were eligible for inclusion and was indispensable having a comparison group or multiple time points comparing the same group. A total of 9 studies met inclusion criteria (4 RCTs, 3 quasi-experimental, one was a comparison group study and one was a program evaluation). Measures used were abstinence (Alcohol and drug use subscales of the ASI), Government Performance and Results Act (GPRA) datasets, Community based recovery capital, measured by the Self Sufficiency Matrix, Re-hospitalization, Social Functioning Scale, criminal justice charges, measured using a state court docket management system, Adherence to post- discharge treatment using attendance records. The outcomes appraised were "substance use; housing stability; probation/parole status or other criminal justice status; self-sufficiency; health care utilization; emergency service utilization; re-hospitalization rates; severity of symptoms related to mental health conditions; post-discharge adherence to medical, mental health and/or substance use outpatient treatment; recovery capital; utilization of recovery-oriented services; and various outcomes related to functioning (relatedness, self criticism)". The results showed that the majority of the studies had a statistically significant positive association of the intervention with several recovery outcomes as well improvements in substance use outcomes. However, 1 RCT showed a tendency to substance use reduction although it was not statistically significant at the 0.5 level (Bernstein et al., 2005; 3 percent difference, .06 p value). The authors argue that: "while the study design was strong, the intervention

of drinking to intoxication by 2.9 percent. Min et al. (2007) reported 62 percent of the intervention group were re-hospitalized compared to 73 percent in their control group.Lastly, Tracyet al. reported post discharge adherence of 43 percent and 48 percent for peer-delivered interventions compared to 33 percent for the treatment as usual group. The authors of the review recommend that: "overall, the majority of studies indicated that participation of peers in recovery support interventions appeared to have a salutary effect on participants and made a positive contribution to substance use outcomes. While we can conclude that there is evidence for the effectiveness of peer-delivered recovery support services, additional research is necessary to determine the effectiveness of different approaches and types of peer support services, with regard to the amount, intensity, skill level of the peer, service context, and effectiveness among different target populations"

Systematic Review of SMART Recovery: Outcomes, Process Variables, and Implications for Research Beck at al, Psychology of Addictive Behaviors, 2017, Vol. 31, No. 1, 1–20

The authors of this review begin clarifying that Self-Management and Recovery Training - SMART Recovery as "one model recommended alongside 12-step by clinical guidelines for both addiction (National Institute for Health Excellence, 2011, 2012) and dual diagnosis (Mills et al., 2010). SMART Recovery is a not-for-profit organization that provides mutual aid in group and online formats (Horvath & Yeterian, 2012). SMART Recovery focuses on self-empowerment and adopts key principles (e.g.self-efficacy) and therapeutic approaches (e.g. motivational interviewing and cognitive–behavioural therapy) shown to be effective in promoting recovery from addiction. Unlike 12-step approaches that offer addiction-specific support groups (e.g. Alcoholics Anonymous, Narcotics Anonymous, Gamblers Anonymous), SMART Recovery offers support for a range of addictive behaviours (Horvath & Yeterian, 2012)". The inclusion criteria for this review were: adults (ages > 18) taking part in SMART Recovery with SUD. The intervention could be in a group format, of any intensity or frequency (including stand alone and/or as an adjunct), by a lay/peer or professional facilitator and be compared to TAU (this, in wide range of scenarios). Studies without a comparator group were also eligible. Finally, it had to be provided data for SMART Recovery participants for at least one of the following: (a) severity of addiction and its consequences, (b) process variables (e.g. treatment engagement), or (c) feasibility. The methodological characteristics of the 12 studies that met inclusion criteria were: eight of them were cross-sectional, one RCT, one pre- and posttreatment design (2 publications), one quasi-experimental pseudoprospective study. Regarding the outcomes of interest, alcohol related problems were the most frequent, with the majority relying on subjective self-evaluations – only 3 had standardized assessments. The focus of 3 studies were illicit drugs. The effects of the intervention when there was a control group are as follows: it was possible to uncover an overall reduction in alcohol and substance use across time (Brooks & Penn, 2003; Penn &Brooks, 2000). Improvement in Addiction Severity Index (ASI) Alcohol (but not ASI Drug) was superior for 12-step relative to SMART Recovery participants (Brooks & Penn, 2003). Urine analysis showed that 12-step participants were less likely than SMART Recovery participants to use marijuana at 2 months follow-up (no other substances or follow-up intervals reached significance; Brooks &Penn, 2003). Blatch et al (2016) showed better legal outcomes (e. g. reconviction) for participants who attended both Getting SMART and SMART Recovery. Still, the improvements in SMART Recovery only did not significantly differ from that of controls. Atkins and Hawdon, as well as Bogdonoff (2002) and Trumble (2015), reported an equivalent duration of sobriety for SMART Recovery and AA participants. Bogdonoff (2002) found that when comparing to AA, SMART Recovery participants' demonstrated greater positive secondary outcomes but none of them were related to abstinence.

methods prevented us from making conclusive remarks about the efficacy of SMART Recovery, but positive effects were found in dual diagnosis (Brooks & Penn, 2003; Penn & Brooks, 2000) and correctional settings (Blatch et al., 2016). Evidence from the sole identified RCT also supported the benefits of SMART Recovery for reducing the severity and consequences of problematic alcohol use (Hester et al., 2013). It is important to note that this RCT was independently evaluated by two assessors to be of high quality and at low risk of bias, thereby increasing our confidence in these findings. However, an important limitation of these studies is the limited (Hester et al., 2013) or absent (Blatch et al., 2016; Brooks& Penn, 2003; Penn & Brooks, 2000) assessment and reporting of concurrent treatment (pharmacological and psychological). The comparative influence of SMART Recovery on addiction outcomes relative to other forms of mutual aid and/or evidence-based treatments (alone or as an adjunct) has yet to be systematically evaluated."

Peer support workers in substance abuse treatment services: A systematic review of the literature
du Plessis, C. Journal of Substance Use, 2019

This review focuses on the outcomes related to the peer workers themselves. It is a relevant topic of research since they are integral to the approach of peer support. The criteria utilized were: the studies needed to refer to all three: (1) peer support, (2) substance abuse or mental health and (3) lived experience, with a total of 24 studies included. The results are mostly for mental health outcomes since there is little research on substance abuse outcomes for this population (peer service workers - PSW). Regarding Professional benefits: PSWs experience career related benefits as a result of their roles (Chang & Liu, 2014; Hymes, 2015; Mowbray, Moxley, & Collins,1998; Repper & Carter, 2011; Walker &Bryant, 2013). It provides an important factor in entering back the work force and reintegration after themselves having SUD and other mental health issues (Mowbray et al.,1998; Walker &Bryant, 2013), and consist of an opportunity to gain professional skills (Chang & Liu, 2014; Hymes, 2015; Mowbray et al.,1998); provides structure (Mowbray et al.,1998; Repper & Carter, 2011) and stability that consequently leads personal growth and recovery (Hymes, 2015). Despite these favourable results from some qualitative studies, the authors highlight that "while much is understood on the lived experiences of PSWs in the mental health setting, very little research has focused specifically on the lived experience of PSWs in a substance abuse treatment setting and no research has looked at the influence their roles have on their recovery. There is a major gap in the literature with regards to the experiences of PSWs in substance abuse treatment settings and if the role influences their recovery"

3.3.5. Long term/community treatments

The effectiveness of residential treatment services for individuals with substance use disorders: A systematic review
de Andrade et al, Drug and Alcohol Dependence 201 (2019) 227–235

The definition of this approach for the treatment of patients with SUD is as follows: "residential substance use treatment services provide intensive care and support for individuals with severe and complex substance use disorders within an alcohol and drug-free, and 24h residential community setting (Reif et al., 2014). While treatment interventions vary, residential therapeutic programs generally include Alcohol and Other Drug (AOD) withdrawal or maintenance management in a hospital or supervised residential facility, individual and group psychological support, mutual self-help and peer

one in Brazil, one in Czech Republic, one in Scotland, and one Iran. The results revealed that residential rehabilitation was effective for treatment outcomes. Specifically, substance use outcomes, since 17 of 23 studies reported improvements over time. A cohort study within a therapeutic community setting (Šefránek and Miovský, 2017, 2018) reported abstinence rates of 88% or more across a range of illicit drugs at their 12-month follow-up (78% participant retention rate). Two high quality RCT studies found improvements in substance use outcomes in both the treatment and controls groups, but the initial improvements in the control group (residential treatment as usual) were not seen over follow-up (Daughters et al., 2018; Daviset al., 2018). Five studies that utilized the Addiction Severity Index (ASI) found a important reduction ($P < 0.05$) on both substance use outcomes at follow-up, regardless of the treatment model, population or follow-up length used. Besides, reductions ($P < 0.05$) in substance use were found across multiple studies between baseline and 1-month follow-up (Schoenthaler et al., 2017); other assessed outcomes in this review were: social outcomes, mental health outcomes, criminal activity outcomes and mortality outcomes.

The authors conclude that 'Overall, some evidence that residential treatment (including therapeutic communities) improves substance use and mental health was found. The results of this review suggest that most types of residential treatment have some positive impact. A number of prior reviews on integrated treatment models for comorbid mental illness and substance dependence found improvements in substance use, mental health, social functioning, and perceived quality of life outcomes (Brunette et al., 2004; Cleary et al.,2009; Drake et al., 2008; Smith et al., 2006; Vanderplasschen et al.,2013). The five studies included in this review which trialled and evaluated integrated treatment models also found positive effects (Bergman et al., 2014;McGuire et al., 2018; Morse and McMaster et al., 2015;Rome et al., 2017; Schoenthaleret al., 2017), providing further evidence of the effectiveness of an integrated treatment approach for high needs and comorbid populations."

Effect of Assertive Community Treatment for Patients with Substance Use Disorder: A Systematic Review
Penzenstadler, L at al. Eur Addict Res 2019;25:56–67

The rationale behind this review lies in the fact that some patients with SUD have difficulty maintaining the traditional form of outpatient treatment, especially those with comorbidities and other high need groups, so more intensive approaches must be investigated for effectiveness. The authors describe the assertive community treatment" (ACT) model as "originally developed by Stein and Test in the 1970s for people with psychotic illnesses, ACT was originally developed for patients with severe mental illness and provides personalized community care by multidisciplinary teams. The key elements of the ACT model are assertive engagement, delivery of services in the community, high intensity of services, holistic and integrated services by multidisciplinary teams, and continuity of care. In order to provide a high intensity of care, the case loads are small and in the original model a 24 h service is provided."

The inclusion criteria were as follows: (1) randomized controlled trial, (2) adult participants (< 18 yo) (3) SUD or dual disorder (SUD + another psychiatric disorder), (4) an ACT intervention compared to treatment as usual or compared to another treatment. This yielded 11 publications included in the analysis, being the outcomes: substance use, treatment engagement, hospitalization rates, quality of life, housing status, medication compliance and criminal justice problems. Regarding substance use,

reduction in substance use overall but no significant effect of ACT over control interventions. Other outcomes measures are more difficult to compare, as the studies did not always use the same measures. Treatment engagement was higher in ACT than CGs in 4 of the 5 datasets. ACT intervention often showed equal but not superior improvement as in the CGs. The methodical quality of the included studies is rather low, which makes it difficult to draw clear conclusions concerning the effectiveness of ACT for SUD. Discrepancies related to the effect of ACT on substance use may distract from the positive results repeatedly reported on some of the other outcomes such as the improvements on the service use profile and on the reduction of the hospital use costs. Longer treatment duration and possibly the adding of further components in the ACT treatments models for SUD should be considered in future studies."

A systematic review and meta-analysis of the efficacy of the long-term treatment and support of substance use disorders
Beaulieu, M et al. Social Science & Medicine 285 (2021) 114289

This review brings the important reconceptualization of SUD as a chronic condition, hence addressing the need for studies to support this shift of approach. The examples in the literature of the persistent characteristic of this condition are abundant, such as a study "showing that, for 35 %–54 % of the people, it took on average 17 years from the first appearance of the disorder to a complete absence of diagnostic criteria for a whole year (Fleury et al., 2016). Likewise, the median time from the first treatment episode to the first full year without substance use was nine years (Dennis et al., 2005)." This kind of treatment is known as a continuation of the initial intensive care, and can be referred as extended intervention, continuing care, stepped care, recovery management, or aftercare. One constituent of interest in the Recovery-oriented approaches being the Recovery Management Check-up (RMC) (Scott et al., 2003), that are specifically designed to reduce the time between a relapse and a return to treatment by maintaining regular contact with people who have already finished their treatment. The question of how long the patient experiencing SUD should be accompanied is an important one. According to the National Institute on Drug Abuse (2012), people with a SUD (excluding people with an opioid addiction) would need a minimal threshold of 90 service days (e.g. medications, behavioural therapies, or their combination) to begin necessary changes toward recovery. Although this period is preferred when comparing to no treatment, this shift of perspective in the evolution of SUD indicates that it may not be enough, so this review intends search if there is data to support this claim, analysing 18 month-or-longer treatments. The inclusion criteria included a comparison group (with or without randomization) and a DSM IV, DSM- V or even DSM-III or ICD-10 diagnostic of SUD.

The results included 12 papers describing 13 studies, with a total of 3 598 participants and can be summarized as follows: "overall, the results of this meta-analysis suggest that there were more people in the planned, long-term treatment and support groups (18 months or more) than in the comparison groups (shorter standard treatment) who abstained or consumed moderately (OR = 1.347 [95% CI: 1.087 – 1.668], $P < 0.006$). In other words, people who received the long-term treatment and support had a 23.9 % greater chance of being abstinent or consuming moderately than did people who received a shorter standard treatment". After statistical adjustments, the results also suggest "that people who received long-term treatment and support had a 24.4 % greater chance of abstaining or consuming moderately than did people who received the shorter standard treatment". Another important finding,

necessity of providing long-term services for people with persistent SUD. Services should be adjusted according to changes in intensity, length of treatment and support should be personalized, and services should be organized in response to the complexity of each person's needs. Moreover, considering that recovery is a long-term process for people with persistent SUD, services must focus on long-term recovery goals and not on achieving abstinence after a single treatment episode.". Lastly but not least, the authors highlight the fact that: "the primary outcome of this meta-analysis (23.9 % improvement in favour of the long-term treatment group) is based largely on dichotomous abstinence measures, making it a very high threshold to achieve for people with several concomitant problems and high SUD severity (White, 2008). It is thus possible that a more comprehensive measure of daily functioning would have revealed an even larger difference between groups".

3.3.6. Housing

Associations of housing stress with later substance use outcomes: A systematic review
Austin, A E et al. Addictive Behaviors 123 (2021) 107076

The review describes Housing stress as housing problems such as affordability, quality, stability, and loss (U.S. Department of Housing) and Urban Development, 2018), represents another critical public health issue in the U.S. On any given night in 2019, more than half a million people experienced homelessness (U.S. Department of Housing and Urban Development, 2020) and the relation of this with substance use disorders can be drawn from "the social causation hypothesis", from which is possible to infer that the Housing First Approach (where housing stability and affordability are prioritized over abstinence and individuals have autonomy to choose the treatments that best fitted for their reality) is fundamental for SUD Recovery, so the data to support this approach is fundamental.

The search on this topic yielded a final number of 38 studies eligible, where half (19) intended specifically to evaluate the association of housing stress with substance use outcomes and the other half had designs intended to identify predictors of substance use outcomes, being housing one of these studied predictors. The substance use outcomes demonstrated an association between homelessness and an increased likelihood of subsequent substance use (Calcaterra et al., 2014; Johnson and Fendrich, 2007; Linton et al., 2013; Neaigus et al., 2006; Polcin and Korcha, 2017; Riley et al., 2015; Shah et al., 2006). Moreover, three studies demonstrated an association of homelessness with an increased likelihood of substance use, broadly defined (Calcaterra et al., 2014; Johnson and Fendrich, 2007). Additionally, prior homelessness was associated with an increased likelihood of later alcohol and other SUD symptoms (Johnson, Freels, Parsons, & Vangeest, 1997), severe alcohol (Moss et al., 2020) and SUD disorder symptoms (Buchholz et al., 2010). The authors conclude that: "Broadly, these results lend support to the social causation hypothesis with respect to homelessness and later substance use, SUD, and overdose death, though results for other forms of housing stress and for some substance use outcomes are less consistent." and that: "Results from this systematic review provide some evidence in support of the social causation hypothesis, indicating that initiatives to address housing stress, a factor of the social and environmental context that is amenable to programmatic and policy intervention, may help to mitigate some substance use outcomes."

Recovery Housing: Assessing the Evidence – Assessing the Evidence Base Series
Reif, S et al. Psychiatric Services65:295–300, 2014

controlled trials (RCTs), quasi-experimental studies, single-group repeated-measures design studies, and review articles such as meta-analyses and systematic reviews; U.S. and international studies in English; and studies that focused on recovery housing for individuals with substance use disorders or co-occurring mental and substance use disorders, including abstinence-contingent recovery housing. They identified five articles (RCTs) with a control group and one quasi-experimental study with a within-group, repeated-measures design. Nevertheless, four of the five RCTs were describing aspects of the same study so only three distinct studies were included.

The results showed that Oxford House models for individuals with SUD had positive effects (at two years of follow-up, the intervention was associated with significantly less substance use, more employment, and higher incomes than TAU). The authors conclude that there is: “a moderate level of evidence for the effectiveness of recovery housing. Literature suggest that recovery housing can have positive effects on many aspects of recovery and that this service has an important role to play in supporting individuals with substance use disorders. However, a key issue for recovery housing as a service is funding. In most cases, recovery housing does not include formal therapeutic treatment; therefore, it is not reimbursable by public or private insurance”.

3.4. Grading the Evidence

Table 3. Systematic review: Digital recovery support services used to support substance use disorder recovery
Author(s): Robert D. Ashford | Brandon G. Bergman| John F. Kelly| Brenda Curtis
Date: 2019
Question: How technology-based digital recovery support services (D-RSS) can increase the reach of SUD interventions?
Reference List: https://doi.org/10.1002/hbe2.148

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Drug consumption									
22	observational studies	not serious	serious[a]	serious[b]	extremely serious[c]	none	Feasibility shows to be favourable, as most studies present low attrition and high engagement of users. Nonetheless, only 4 studies had a design able to determine effectiveness (e.g. experimental or quasi-experimental), so the evidence is limited. From the experimental evidence (smartphone-based app ACHESS and SMS-based D-RSS) it was found that D-RSS participation contributes to reductions in risky substance use.	⊕◯◯◯ Very low	CRITICAL

a. the interventions and outcomes vary throughout the studies used in the review (many described as unknown)
b. online services seem to have questionable benefits for patients that are familiar with this specific approach, no comparison to general population
c. mostly observational studies - absence of experimental evidence

Table 4. Feasibility and Effects of Digital Interventions to Support People in Recovery From Substance Use Disorders: Systematic Review
Author(s): Sverre Nesvåg et al
Date: 2018
Question: Should Digital Interventions compared to TAU be used for SUD?
Reference List: J Med Internet Res 2018 | vol. 20 | iss. 8 | e255

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Reduction in substance use									
43	observational studies	very serious[a]	serious[b]	not serious	not serious	none	Simple interventions: Of the 24 studies included to analize the substance use outcomes, 7 featured a control condition and produced positive effects (all had moderate effect size advantages over the control conditions). On the other hand, 8 studies of simple interventions with control conditions found no positive effects on substance use outcomes. Concerning the 10 complex interventions, a total of 19 publications were included in the review: 9 yielded positive results, 5 produced negative results, 2 did not include control conditions, and 3 did not examine SUD outcomes.	⊕◯◯◯ Very low	CRITICAL

a. The positive results could have simply reflected self-selection, with more motivated participants both accessing the intervention more frequently and having better outcomes.
b. heterogeneous results across the studies

Table 5. Occupation-Based Intervention for Addictive Disorders: A Systematic Review

Author(s): Sally Wasmuth Ph.D, OTR, Kevin Pritchard, Kellie Kaneshiro AMLS,AHIP,

Question: Occupation-based interventions compared to TAU for SUD?

Date: 2015

Bibliography: Wasmuth, S., Pritchard, K. & Kaneshiro, K., Occupation-based intervention for addictive disorders: A systematic review, Journal of Substance Abuse Treatment (2015), doi:10.1016/j.jsat.2015.11.011

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Reduction in substance use (follow-up: range 1 days to 1 years; assessed with: Addiction Severity Index [ASI], Revised Symptom checklist [SCL-90-R], Brief Symptom Inventory [BSI], and the Circumstances, Motivation, and Readiness Scales for Substance Abuse Treatment [CMR])									
8	randomized trials	not serious	serious[a]	not serious	not serious	none	Social participation interventions showed better outcomes when comparing to control groups (19X7), but effect sizes on ASI scale were small. ASI: 0.08 (drug consumption) – Cohen's d/SMD	⊕⊕⊕⊕ High	CRITICAL

a. social participation interventions were statistically significant but not other types of occupational-based intervention, for example, leisure

Table 6. The Benefits of Physical Exercise on Mental Disorders and Quality of Life in Substance Use Disorders Patients. Systematic Review and Meta-Analysis
Author(s): Jorge Giménez-Mesegue et al.
Date: 2020
Question: Should Physical Exercise vs TAU be used for SUD?
Reference List: J. Environ. Res. Public Health2020,17, 3680; doi:10.3390/ijerph17103680

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Physical Exercise	TAU	Relative (95% CI)	Absolute (95% CI)		
Social functioning (follow-up: range 2 weeks to 12 months)												
6	randomized trials	serious[a]	not serious	not serious	not serious	none	124	127	-	MD **0.56** (0.27 higher to 0.84 higher)	⊕⊕⊕◯ Moderate	IMPORTANT
Harm from drug use - general health (follow-up: range 2 weeks to 12 months)												
6	randomized trials	serious[b]	not serious	not serious	not serious	none	124	127	-	MD **0.65** (0.39 higher to 0.9 higher)	⊕⊕⊕◯ Moderate	IMPORTANT
Harm from drug use - craving (follow-up: range 2 weeks to 12 months)												
3	randomized trials	serious[c]	not serious	not serious	not serious	none	85	83	-	MD **0.89** (0.05 lower to 1.82 higher)	⊕⊕⊕◯ Moderate	IMPORTANT

CI: confidence interval; **MD:** mean difference
a. methodological limitations: non-performance of inter-group analysis, high number of dropouts, lack of control group or unrepresentative samples. Also, the heterogeneity of the selected studies can indicate a bias when compiling the results.
b. same as a
c. same as a

Table 7. Mindfulness-Based Interventions for the Treatment of Substance and Behavioural Addictions: A Systematic Review
Author(s): Marta Sancho
Date: 2018
Question: Should mindfulness-Based interventions - MORE vs TAU be used for SUD?
Reference List: Front. Psychiatry 9:95. doi: 10.3389/fpsyt.2018.00095

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Substance use outcomes - severity, abstinence, and craving									
54	randomized trials	not serious	not serious	not serious	not serious	none	The review shows the value of MBIs/MORE for reducing dependence, craving, and other addiction-related symptoms. However, in the majority of the included trials, effects do not persist at follow-up assessment (12 months). Besides that, studies tend to show that a combination of the studied intervention TAU (including active treatments) would bring the best outcomes.	⊕⊕⊕⊕ High	CRITICAL

Table 8. Spirituality, Religiosity and Addiction Recovery: Current Perspectives
Author(s): Livia Beraldo
Date: 2019
Question: Should Spirituality and Religiosity be used for SUD?
Reference List: Current Drug Research Reviews, 2019, 11, 26-32

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Abstinence									
9	observational studies	very serious[a]	serious[b]	serious[c]	extremely serious[d]	None	Aggressiveness is an outcome in which spirituality appears to have a greater positive influence. It is not possible to estimate, though, the impact of this intervention on abstinence because the majority of the selected studies for this review do not use control group, although there is a tendency showing some beneficial effects. It may be difficult to carry out randomized controlled trials because of the nature of the spiritual/religious dimensions. .	⊕◯◯◯ Very low	CRITICAL

a. all studies from treatment centres focused on this specific approach
b. there are a lot of different outcomes between the selected studies
c. there's a tendency towards positive results but it is not possible to say to which extent the specific intervention affects the outcome "abstinence"
d. there's a vague benefit described in the results section

Table 9. Relationship of Spirituality or Religion to Recovery From Substance Abuse

Author(s): Benita Walton-Moss

Date: 2013

Question: Should Spirituality or Religion compared to TAU for SUD?

Reference List: Journal of Addictions Nursing Volume 24, Number 4, 2013 International Nurses Society on Addictions

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Abstinence									
29	observational studies	very serious[a]	not serious	not serious	very serious[b]	None	The evidence suggests at least some support for a beneficial relationship between S/R and recovery from substance use disorders, although it is not possible to determine the precise size effect of this approach due to the lack of quality data from these reviewed studies since no RCTs were used.	⊕◯◯◯ Very low	CRITICAL

a. self-selection bias, due to the universally known characteristics of these programs

b. Participants were mostly middle aged even though adults aged 18Y25 years have the highest rates of substance dependence and abuse among all age groups (SAMHSA, 2011). Also, marijuana was rarely found in the studies as a substance of abuse despite being the most commonly abused illicit drug in the U.S

Table 10. College programming for students in addiction recovery: A PRISMA-guided scoping review

Author(s): Vest, Noel et al, 2021

Question: Should College programming be used for students in addiction recovery?

Bibliography: Addictive Behaviors, (2021), 1069992, 121, DOI: 10.1016/J.ADDBEH.2021.1069

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Substance use or abstinence									
19	observational studies	serious[a]	very serious[b]	serious[c]	extremely serious[d]	None	It is possible to identify an overall tendency to positive association of the intervention (CRPs) with clinical outcomes such as abstinence, but the lack of methodological quality in the studies such (only quantitative ones) and no rigorous definition of the interventions, as well as the heterogeneity of the outcomes found in the studies used in the review do not allow the evaluation the impact of CRPs.	⨁◯◯◯ Very low	CRITICAL

Explanations

a. students more motivated to change also may be more motivated to engage in CRPs (intervention)

b. the studies included in the review reported heterogeneous interventions and outcomes

c. due to the lack of quantitative data, it is not possible to evaluate the efficacy of the intervention, which is the main purpose of the review

d. conceptual models were rarely applied to inform research design and data collection.

Table 11. The Effectiveness of Interventions Intended to Improve Employment Outcomes for Persons with Substance Use Disorder: An Updated Systematic Review

Author(s): Stephen Magura & Tina Marshall

Date: 2020

Question: Should Individual Placement and Support (IPS) and its variant Customized Employment Supports (CES) vs TAU be used for people with SUD?

Reference List: Substance Use & Misuse, DOI: 10.1080/10826084.2020.1797810

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Psychosocial functioning - employment									
14	randomized trials	not serious	not serious	not serious	not serious	none	Statistically significant intervention effects for at least one employment-related outcome, conventionally defined as P < 0.05 (two-tailed test), were reported by 11 out of the 14 studies in this review. However, in most studies the magnitude of effects was small.	⊕⊕⊕⊕ High	IMPORTANT

Table 12. Review of Individual Placement and Support Employment Intervention for Persons with Substance Use Disorder
Author(s): Jennifer Harrison, Matthew J. Krieger & Hillary A. Johnson
Date: 2019
Question: Should Individual Placement and Support Employment compared to TAU be used for SUD?
Reference List: Substance Use & Misuse, DOI: 10.1080/10826084.2019.1692035

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Psychosocial functioning - employment									
5	randomized trials	not serious	not serious	not serious	not serious	none	5 RCTs: 1 - IPS participants had significantly more employment, fewer days to employment, and total wages from work 2- IPS participants had more days of employment per month, although no differences in total employment 3- IPS participants were more likely to gain competitive employment, work more hours, and earn higher wages. 4- IPS participants were 11 times more likely to gain competitive employment 5- EBP supported employment participants were more likely to gain competitive employment, work more hours, and earn more wages.	⊕⊕⊕⊕ High	IMPORTANT

Table 13. A systematic review of the effectiveness of employer-led interventions for drug misuse
Author(s): Maxwell O. Akanbi
Date: 2020
Question: Should Employer-led interventions compared to TAU be used for SUD?
Reference List: , J Occup Health. 2020;62:e12133. |1 of 19 https://doi.org/10.1002/1348-9585.12133

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Reduction in substance use									
27	observational studies	not serious	serious[a]	not serious	serious[b]	none	The findings of the review suggest that the interventions may work in some cases, but no rigorous methodology was found, so there is need for more research of employer-led interventions.	⊕◯◯◯ Very low	CRITICAL

a. studies evaluated multiple interventions or outcomes
b. the outcomes were very distinct from one study to other, with no recognizable tendency

Table 14. A meta-analysis of the efficacy of case management for substance use disorders: A recovery perspective

Author(s): Wouter Vanderplasschen Richard C. Rapp, Jessica De Maeyer and Wim Van Den Noortgate

Date: 2019

Question: Should case menagement vs TAU be used for SUD?

Reference List: Frontiers in Psychiatry, April 2019 | Volume 10 | Article 186, 10.3389/fpsyt.2019.00186

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	case management	TAU	Relative (95% CI)	Absolute (95% CI)		
Social functioning												
15	randomized trials	not serious	serious[a]	not serious	not serious	none	2522/5748 (43.9%)	3226/5748 (56.1%)	**mean effect 0.06** (-0.02 to 0.15)	-	⊕⊕⊕◯ Moderate	IMPORTANT
Substance use outcomes												
17	randomized trials	not serious	serious[b]	not serious	not serious	none	2907/6555 (44.3%)	3648/6555 (55.7%)	**mean effect 0.33** (0.18 to 0.48)	-	⊕⊕⊕◯ Moderate	CRITICAL

a. substantial heterogeneity was observed between as well as within studies.

b. same as a

Table 15. Lived Experience in New Models of Care for Substance Use Disorder: A Systematic Review of Peer Recovery Support Services and Recovery Coaching
Author(s): David Eddie, Lauren Hoffman , Corrie Vilsaint1, Alexandra Abry , Brandon Bergman1,Bettina Hoeppner , Charles Weinstein and John F. Kelly
Question: Should Peer Recovery Support Services and Recovery Coaching compared to TAU be used for SUD?
Date: 2019
Reference List: DOI: 10.3389/fpsyg.2019.01052

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Abstinence (follow-up: range 1 months to 6 months)									
7	randomized trials	serious[a]	serious[b]	not serious	serious[c]	none	"Overall, positive effects appeared small to moderate in magnitude, and null findings were observed for many hypothesized treatment effects. It's possible too that the large numbers of measures assessed across these studies could be leading to type I error. These findings, however, should be taken in context; these studies typically reported on novel interventions still under development, providing treatment for individuals with complex clinical presentations"	⨁◯◯◯ Very low	CRITICAL

a. RCTs did not use intention to treat design and the participants had severe SUD and co-occurring mental illness
b. generally poorly defined and non-manualized peer roles and procedures
c. lack of control groups to allow discernment of the independent effects of peers

Table 16. Peer Recovery Support for Individuals with Substance Use Disorders: Assessing the Evidence
Author(s): Sharon Reif
Date: 2014
Question: Should Peer Recovery Support compared to TAU be used for SUD?
Reference List: PSYCHIATRIC SERVICES, July 2014 Vol. 65 No. 7853, DOI: 10.1176/appi.ps.201400047

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Reduced rates of relapse									
2	randomized trials	not serious	not serious	not serious	serious[a]	none	At 6 months, the intervention group had a greater proportion of participants with cocaine abstinence (P < 0.05) and heroin abstinence (P < 0.06) and who were drug-free (P < 0.06). No group differences were noted in detox or treatment admissions among those who were abstinent. The intervention group showed a trend for greater improvement in ASI drug severity scores (P < 0.07) and medical severity scores (< 0,06). Some baseline differences in comparison groups were noted.	⊕⊕⊕◯ Moderate	CRITICAL

a. most of the studies in this review are observational. Only 2 high quality methodology was found, the 2 RCTs used for this specific outcome

Table 17. Benefits of peer support groups in the treatment of addiction
Author(s): Kathlene Tracy, Samantha P Wallace
Date: 2016
Question: Should Peer support groups compared to TAU be used for SUD?
Reference List: Substance Abuse and Rehabilitation (2016), 143-154, Volume 7

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	peer support groups	TAU	Relative (95% CI)	Absolute (95% CI)		
Abstinence												
7	randomized trials	not serious	very serious[a]	not serious	not serious	all plausible residual confounding would suggest spurious effect, while no effect was observed	-/6 885	-/6 885	**OR 1.38** (1.02 to 1.86)	-	⊕⊕⊕◯ Moderate	CRITICAL
Adherence to post-discharge outpatient												

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	peer support groups	TAU	Relative (95% CI)	Absolute (95% CI)		
2	randomized trials	not serious	very serious[b]	not serious	not serious	none	-/6885	-/6885	Tracy et al and Mangrum et al both found that patients in the intervention group were significantly more likely to attend their outpatient substance abuse treatment appointments than those in TAU 1 year post discharge.		⊕⊕◯◯ Low	IMPORTANT
Risky behaviours												
2	randomized trials	not serious	not serious	not serious	not serious	none	-/1384	-/1384	**OR 0.46** (0.27 to 0.79)	-	⊕⊕⊕⊕ High	IMPORTANT

a. the intervention groups included a large variety of different approaches, so it was not possible to disentangle the effects/outcomes
b. same as a

Table 18. Effectiveness of peer recovery support services on stages of the opioid use disorder treatment cascade: A systematic review
Author(s): Gormley, Mirinda Ann
Date: 2021
Question: Should Peer recovery support services compared to TAU be used for opioid use disorder?
Reference List: Drug and Alcohol Dependence, (2021), 229

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Abstinence									
9	observational studies	very serious	very serious[a]	not serious	serious[b]	none	Effectiveness of PRSS interventions for opioid use disorder remain inconclusive regarding abstinence.	⊕◯◯◯ Very low	CRITICAL

a. Findings for available outcomes were inconsistent and difficult to compare due to the heterogeneity of the interventions
b. there were no abstinence/remission outcomes reported

Table 19. A review of literature of peer-based recovery support in substance abuse and the implications for effective implementation in Seychelles

Author(s): Ayuk Nyakpo Orock & Georges Nicette

Date: 2021

Question: Should Peer-based recovery support compared to TAU be used for SUD?

Reference List: Journal of Substance Use, DOI: 10.1080/14659891.2021.1912201

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Harm from drug use - decreased rate of hospitalization									
15	observational studies	serious[a]	not serious	not serious	very serious[b]	none	Studies used in this review show an overall effectiveness of P-BRS interventions in SUDs, such as decreased rate of hospitalization, social support from peers and improve treatment outcomes.	⊕◯◯◯ Very low	IMPORTANT

a. the review intends to research the topic but also to justify the implementation of this approach in their country, which can lead to a bias of selection of the studies for the review.

b. there's no pooled data of comparison groups, only descriptive results of beneficial approaches regarding PRS. Also, there's no description of the studies designs.

Table 20. Peer-Delivered Recovery Support Services for Addictions in the United States: A Systematic Review

Author(s): E.L. Bassuk et al.

Date: 2016

Question: Should Peer-Delivered Recovery Support Services compared to TAU be used for SUD?

Reference List: Journal of Substance Abuse Treatment 63 (2016) 1–9

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Substance use outcomes (follow-up: range 3 months to 3 years)									
9	randomized trials	not serious	very serious[a]	not serious	not serious	none	Despite this methodological limitation of the studies examined, variations in program models, different outcomes and limited description of peer roles, the general conclusion from the this review is that participation of peers in recovery support interventions appears to have a beneficial effect on participants and makes a positive contribution to substance use outcomes.	⊕⊕◯◯ Low	CRITICAL

a. the instruments used to assess drug and alcohol use were not standardized

Table 21. Systematic Review of SMART Recovery: Outcomes, Process Variables, and Implications for Research
Author(s): Alison K. Beck
Date: 2017
Question: Should SMART Recovery - Self-Management and Recovery Training compared to TAU be used for SUD?
Reference List: Psychology of Addictive Behaviors, 2017, Vol. 31, No. 1, 1–20

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Severity of addiction and its consequence									
12	observational studies	serious[a]	very serious[b]	serious[c]	not serious	none	The small sample of articles, the heterogeneity of the study designs and diversity of methods do not allow making conclusive remarks about the efficacy of SMART Recovery, but positive effects were found (in dual diagnosis and in correctional settings). The only RCT analysed supported the benefits of SMART Recovery for reducing the severity and consequences of problematic alcohol use (not other substances, though). Another limitation is the absent assessment and reporting of simultaneous treatment.	⊕◯◯◯ Very low	CRITICAL

a. inherent impossibility of masking participants and providers in psychological interventions

b. interventions poorly described, reporting of concurrent treatment lacking,
c. Functional outcomes were rarely reported

Table 22. Peer support workers in substance abuse treatment services: A systematic review of the literature

Author(s): Courtney du Plessis (2019)

Question: Should Peer support workers compared to TAU for SUD outcomes in the workers treatment?

Setting: evaluation of beneficial outcomes for the peer support workers themselves

Bibliography: Journal of Substance Use, DOI:10.1080/14659891.2019.1677794

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Psychosocial functioning - professional benefits									
24	observational studies	serious[a]	not serious	not serious	very serious[b]	none	The results are predominantly from a psychosocial/functional setting of the peer support workers perspective, since there is none or minimal data in a substance abuse setting. PSWs experience multiple benefits in work related outcomes, as well in personal ones (confidence, for instance).	⊕◯◯◯ Very low	IMPORTANT

a. the studies used for this review are mostly narrative of experiences of the workers who already intended to use this intervention, so it can lead to publication bias of only positive outcomes

b. Since there's no comparison group for the observational studies used, it is not possible to be certain of the precise impact of the intervention on the workers versus other types of work

Table 23. The effectiveness of residential treatment services for individuals with substance use disorders: A systematic review

Author(s): de Andrade, et al

Date: 2019

Question: Should residential treatment services compared to TAU be used for SUD?

Reference List: Drug and Alcohol Dependence 201 (2019) 227–235229

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Abstinence									
23	observational studies	very serious[a]	very serious[b]	serious[c]	very serious[d]	none	Residential treatment may be effective in reducing substance use and improving mental health. There is also some evidence that it may have a positive effect on social and offending outcomes. However, there remains the need to conduct more research in this field that can address significant methodological flaws (particularly attrition).	⊕◯◯◯ Very low	CRITICAL

a. The data used is of patients that are followed-up, since the intervention is residential services - these patients are likely to have better outcomes in comparison to TAU because they are contactable - attrition bias

b. the studies have various methodological flaws and high attrition at follow-up

c. irregular follow-up, numerous outcomes in particular studies but no reliable outcome data across all studies analysed

d. many confounding factors - distinct clinical features and outcomes within the studies

Table 24. Effect of Assertive Community Treatment for Patients with Substance Use Disorder: A Systematic Review
Author(s): : Louise Penzenstadler
Date: 2019
Question: Should Assertive Community Treatment compared to TAU be used for SUD**?**
Reference List: Eur Addict Res 2019; 25:56–67, DOI: 10.1159/000496742

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Reduction in substance use									
11	randomized trials	not serious	serious[a]	not serious	not serious	none	The randomized control studies used for this review vary significantly. Regarding outcomes assessed. Most report a reduction in substance use overall but no significant effect of ACT over control interventions. Other outcomes are more difficult to compare, because the RCTs didn't use the same measures and the population was heterogeneous. Higher fidelity to the ACT model seems to improve results and studies often found at least one outcome measure improve (besides substance use) - treatment engagement, hospitalization rates, quality of life, housing status, medication compliance and legal problems.	⊕⊕⊕◯ Moderate	CRITICAL

a. Outcome measures were distinct between studies.

Table 25. A systematic review and meta-analysis of the efficacy of the long-term treatment and support of substance use disorders
Author(s): Myriam Beaulieu
Question: Should Long-term treatment and support compared to TAU be used for SUD?
Date: 2021
Bibliography: Social Science & Medicine 285 (2021) 114289

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	long-term treatment and support	TAU	Relative (95% CI)	Absolute (95% CI)		
abstinence												
14	randomized trials	not serious	not serious	not serious	not serious	none	-/3598	-/3598	**OR 1.347** (1.087 to 1.668)	-	⨁⨁⨁⨁ High	CRITICAL

CI: confidence interval; **OR:** odds ratio

Table 26. Associations of housing stress with later substance use outcomes: A systematic review
Author(s): Anna E. Austin
Date: 2021
Question: Should Housing compared to TAU be used for SUD?
Bibliography: Addictive Behaviors 123 (2021) 107076

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Substance use									
38	observational studies	not serious	serious[a]	not serious	very serious[b]	none	Several studies found association between homelessness and an increased likelihood of subsequent substance use (Calcaterra et al., 2014; Johnson and Fendrich, 2007; Linton et al., 2013; Neaigus et al., 2006; Polcin and Korcha, 2017; Riley et al., 2015; Shah et al., 2006)	⨁◯◯◯ Very low	CRITICAL
Harm from drug use - overdose/death									

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
19	observational studies	not serious	serious[c]	not serious	very serious[d]	none	Six studies found association of homelessness with an increased likelihood of overdose death (Baggett et al., 2013, 2015; Binswanger et al., 2016; Fine et al., 2020; Kerker et al., 2011; O'Driscoll et al., 2001).	⊕◯◯◯ Very low	IMPORTANT

a. Results concerning the association of housing stress with treatment were mixed. In particular, measures of treatment completion lacked specificity. Hence, it is not possible to compare results across studies or determine the factors that may have contributed to the inconsistent findings, and understand which treatment models may be best suited for those with housing stress.
b. Despite existing an overall association with housing distress and SUD, several studies did not show an association of unstable housing with substance use
c. same as a
d. same as b

Table 27. Recovery Housing: Assessing the Evidence

Author(s): Sharon Reif

Question: Should Recovery Housing compared to TAU be used for SUD?

Date: 2014

Bibliography: PSYCHIATRIC SERVICES March 2014 Vol. 65 No. 3

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Reduction in drug use									
3	randomized trials	very serious[a]	not serious	not serious	not serious	none	Areas of improvement suggested by overall positive results: Drug and alcohol use	⊕⊕◯◯ Low	CRITICAL
Psychosocial functioning – employment									
3	randomized trials	very serious[b]	not serious	not serious	not serious	none	Areas of improvement suggested by overall positive results: Employment	⊕⊕◯◯ Low	IMPORTANT

a. conditions were not blind to the interviewers or the evaluators, and the research team were collaborators and already know what subpopulation would be a better fit

b. conditions were not blind to the interviewers or the evaluators, and the research team were collaborators and already know what subpopulation would be a better fit

4. From Evidence to Recommendations

4.1. Summary of findings

Table 28. Summary of findings

GRADE Table	Source	Outcome	Number of Studies	Effects	Certainty of Evidence
GRADE Table 3: Systematic review: **Digital recovery** support services used to support substance use disorder recovery	DOI: 10.1002/hbe2.148	Drug consumption	22	Feasibility shows to be favourable, as most studies present low attrition and high engagement of users. Nonetheless, only 4 studies had a design able to determine effectiveness (e.g. experimental or quasi-experimental), so the evidence is limited. From the experimental evidence (smartphone-based app ACHESS and SMS-based D-RSS for adolescents) it was found that D-RSS participation contributes to reductions in risky substance use.	⊕◯◯◯ Very low
GRADE Table 4: Feasibility and Effects of **Digital Interventions** to Support People in Recovery from Substance Use Disorders: Systematic Review	DOI: 10.2196/jmir.9873	Reduction in substance use	43	As regards simple interventions: Of the 24 studies included to analyse the substance use outcomes, 7 featured a control condition and produced positive effects (all had moderate effect size advantages over the control conditions). On the other hand, 8 studies of simple interventions with control conditions found no positive effects on substance use outcomes. Concerning the 10 Complex interventions, a total of 19 publications were included in the review: 9 yielded positive results, 5 produced negative results, 2 did not include control conditions, and 3 did not examine SUD outcomes.	⊕◯◯◯ Very low
GRADE Table 5: **Occupation-Based Intervention** for Addictive Disorders: A Systematic Review	DOI: 10.1016/j.jsat.2015.11.011	Reduction in substance use	26	Social participation interventions showed better outcomes when comparing to control groups, but effect sizes on those that used the ASI scale were small. Occupational performance of various types of leisure activities and work revealed larger effect sizes on the four studies whose outcome measures were the SI and/or BDI. In conclusion, integrating occupation-based interventions in individuals 'lives may bring small but significant improvements in SUD recovery.	⊕⊕⊕⊕ High

GRADE Table	Source	Outcome	Number of Studies	Effects	Certainty of Evidence
GRADE Table 6: The Benefits of **Physical Exercise** on Mental Disorders and Quality of Life in Substance Use Disorders Patients. Systematic Review and Meta-Analysis.	doi:10.3390/ijerph17103680	Social functioning	6	MD **0.56 higher** (0.27 higher to 0.84 higher)	⊕⊕⊕◯ Moderate
		Harm from drug use - general health	6	MD **0 0,65 higher** (0.39 higher to 0.9 higher)	⊕⊕⊕◯ Moderate
		Harm from drug use – craving	3	MD **0 0,89 higher** (0.05 lower to 1.82 higher)	⊕⊕⊕◯ Moderate
GRADE Table 7: **Mindfulness-Based Interventions** for the Treatment of Substance and Behavioural Addictions: A Systematic Review	doi: 10.3389/fpsyt.2018.00095	Harm from drug use – craving	5	The review shows the value of MBIs/MORE for reducing dependence, craving, and other addiction-related symptoms. However, in the majority of the included trials, effects do not persist at follow-up assessment (12 months). Besides that, studies tend to show that a combination of the studied intervention TAU (including active treatments) would bring the best outcomes.	⊕⊕⊕⊕ High
GRADE Table 8: **Spirituality, Religiosity** and Addiction Recovery: Current Perspectives, Current Drug Research Reviews	doi: 10.2174/1874473711666180612075954	Reduction in substance use	9	Aggressiveness is an outcome in which spirituality appears to have a greater positive influence. It is not possible to estimate, though, the impact of this intervention on abstinence because the majority of the selected studies for this review do not use control group, although there is a tendency showing some beneficial effects. It may be difficult to carry out randomized controlled trials because of the nature of the spiritual/religious dimensions.	⊕◯◯◯ Very low
GRADE Table 9: Relationship of **Spirituality or Religion** to Recovery from Substance Abuse	doi: 10.1097/JAN.0000000000000001	Reduction in substance use	29	The evidence suggests at least some support for a beneficial relationship between S/R and recovery from substance use disorders, although it is not possible to determine the precise size effect of this approach due to the lack of quality data from these reviewed studies since no RCTs were used.	⊕◯◯◯ Very low
GRADE Table 10: **College programming** for students in addiction recovery: A PRISMA-guided scoping review	doi: 0.1016/j.addbeh.2021.106992	Reduction in substance use/abstinence	19	It is possible to identify an overall tendency to positive association of the intervention (CRPs) with clinical outcomes such as abstinence, but the lack of methodological quality in the studies such (only quantitative ones) and no rigorous definition of the interventions, as well as the heterogeneity of the outcomes found in the studies used in the review do not allow the evaluation the impact of CRPs.	⊕◯◯◯ Very low

GRADE Table	Source	Outcome	Number of Studies	Effects	Certainty of Evidence
GRADE Table 11: The Effectiveness of Interventions Intended to Improve **Employment** Outcomes for Persons with Substance Use Disorder: An Updated Systematic Review	DOI: 10.1080/10826084.2020.1797810	Psychosocial functioning - employment	14	Statistically significant intervention effects for at least one employment-related outcome, conventionally defined as $P < 0.05$ (two-tailed test), were reported by 11 out of the 14 studies in this review. However, in most studies the magnitude of effects were small.	⊕⊕⊕⊕ High
GRADE Table 12: Review of **Individual Placement and Support Employment Intervention** for Persons with Substance Use Disorder	DOI: 10.1080/10826084.2019.1692035	Psychosocial functioning - employment	5	5 RCTs: 1 - IPS participants had significantly more employment, fewer days to employment, and total wages from work 2- IPS participants had more days of employment per month, although no differences in total employment 3- IPS participants were more likely to gain competitive employment, work more hours, and earn higher wages. 4- IPS participants were 11 times more likely to gain competitive employment 5- EBP supported employment participants were more likely to gain competitive employment, work more hours, and earn more wages.	⊕⊕⊕⊕ High
GRADE Table 13**:** A systematic review of the effectiveness of **employer-led interventions** for drug misuse	DOI: 10.1002/1348-9585.12133	Reduction in substance use	27	The findings of the review suggest that the interventions may work in some cases, but no rigorous methodology was found, so there is need for more research of employer-led interventions.	⊕◯◯◯ Very low
GRADE Table 14: A meta-analysis of the efficacy of **case management** for substance use disorders: A recovery perspective	DOI: 10.3389/fpsyt.2019.00186	social functioning	15	**mean effect 0.06** (-0.02 to 0.15)	⊕⊕◯◯ Low
		Substance use outcomes	17	**mean effect 0.33** (0.18 to 0.48)	⊕⊕◯◯ Low

GRADE Table	Source	Outcome	Number of Studies	Effects	Certainty of Evidence
GRADE Table 15: Lived Experience in New Models of Care for Substance Use Disorder: A Systematic Review of **Peer Recovery Support Services and Recovery Coaching**	DOI: 10.3389/fpsyg.2019.01052	Abstinence	23	Overall, positive effects appeared small to moderate in magnitude, and null findings were observed for many hypothesized treatment effects. It's possible too that the large numbers of measures assessed across these studies could be leading to type I error. These findings, however, should be taken in context; these studies typically reported on novel interventions still under development, providing treatment for individuals with complex clinical presentations"	⊕◯◯◯ Very low
GRADE Table 16: **Peer Recovery Support** for Individuals with Substance Use Disorders: Assessing the Evidence	DOI: 10.1176/appi.ps.201400047	Reduced rates of relapse	2	At 6 months, the intervention group had a greater proportion of participants with cocaine abstinence (P = 0,05) and heroin abstinence(p,.06) and who were drug-free (P = 0.06). No group differences were noted in detox or treatment admissions among those who were abstinent. The intervention group showed a trend for greater improvement in ASI drug severity scores (P = 0,07) and medical severity scores (P = 0,06). Some baseline differences in comparison groups were noted.	⊕⊕⊕◯ Moderate
GRADE Table 17: Benefits of **peer support groups** in the treatment of addiction	doi: 10.2147/SAR.S81535	Abstinence	7	**OR 1.38** (1.02 to 1.86)	⊕⊕⊕◯ Moderate
		Adherence to post-discharge outpatient	2	Tracy et al and Mangrum et al both found that patients in the intervention group were significantly more likely to attend their outpatient substance abuse treatment appointments than those in TAU 1 year post discharge.	⊕⊕◯◯ Low
		Risky Behaviours	2	**OR 0.46** (0.27 to 0.79)	⊕⊕⊕⊕ High
GRADE Table 18: Effectiveness of **peer recovery support services** on stages of the opioid use disorder treatment cascade: A systematic review	doi: 10.1016/j.drugalcdep.2021.109123	Abstinence	9	Effectiveness of PRSS interventions for opioid use disorder remain inconclusive	⊕◯◯◯ Very low

GRADE Table	Source	Outcome	Number of Studies	Effects	Certainty of Evidence
GRADE Table 19: A review of literature of **peer-based recovery support** in substance abuse and the implications for effective implementation in Seychelles	DOI: 10.1080/14659891.2021.1912201	Harm from drug use - decreased rate of hospitalization	16	Studies used in this review show an overall effectiveness of P-BRS interventions in SUDs, such as decreased rate of hospitalization, social support from peers and improve treatment outcomes.	⊕◯◯◯ Very low
GRADE Table 20: **Peer-Delivered Recovery Support Services** for Addictions in the United States: A Systematic Review	DOI: 10.1016/j.jsat.2016.01.003	Substance use outcomes	9	Despite the methodological limitations of the studies examined, variations in program models, different outcomes and limited description of peer roles, the general conclusion from the this review is that participation of peers in recovery support interventions appears to have a beneficial effect on participants and makes a positive contribution to substance use outcomes.	⊕⊕◯◯ Low
GRADE Table 21: Systematic Review of **SMART Recovery**: Outcomes, Process Variables, and Implications for Research	DOI: 10.1037/adb0000237 1	Substance use outcomes: severity of addiction	12	The small sample of articles, the heterogeneity of the study designs and diversity of methods do not allow making conclusive remarks about the efficacy of SMART Recovery, but positive effects were found (in dual diagnosis and in correctional settings). The only RCT analysed supported the benefits of SMART Recovery for reducing the severity and consequences of problematic alcohol use (not other substances, though). Another limitation is the absent assessment and reporting of simultaneous treatment.	⊕◯◯◯ Very low
GRADE Table 22: **Peer support workers** in substance abuse treatment services: A systematic review of the literature	DOI: 10.1080/14659891.2019.1677794	Psychosocial functioning - professional benefits	24	The results are predominantly from a psychosocial/functional setting of the peer support workers perspective, since there is none or minimal data in a substance abuse setting. PSWs experience multiple benefits in work related outcomes, as well in personal ones (confidence, for instance).	⊕◯◯◯ Very low
GRADE Table 23: The effectiveness of **residential treatment services** for individuals with substance use disorders: A systematic review	DOI: 10.1016/j.drugalcdep.2019.03.031	Abstinence	23	Residential treatment may be effective in reducing substance use and improving mental health. There is also some evidence that it may have a positive effect on social and offending outcomes. However, there remains the need to conduct more research in this field that can address significant methodological flaws (particularly attrition).	⊕◯◯◯ Very low

GRADE Table	Source	Outcome	Number of Studies	Effects	Certainty of Evidence
GRADE Table 24: Effect of **Assertive Community Treatment** for Patients with Substance Use Disorder: A Systematic Review	DOI: 10.1159/000496742	Reduction of substance use	11	The randomized control studies used for this review vary significantly. regarding outcomes assessed. Most report a reduction in substance use overall but no significant effect of ACT over control interventions. Other outcomes are more difficult to compare, because the RCTs didn't use the same measures and the population was heterogeneous. Higher fidelity to the ACT model seems to improve results and studies often found at least one outcome measure improve (besides substance use) - treatment engagement, hospitalization rates, quality of life, housing status, medication compliance and legal problems.	⊕⊕⊕◯ Moderate
GRADE Table 25: A systematic review and meta-analysis of the efficacy of the **long-term treatment** and support of substance use disorders	DOI: 0.1016/j.socscimed.2021.114289	Abstinence	14	**OR 1.347** (1.087 to 1.668)	⊕⊕⊕⊕ High
GRADE Table 26: Associations of **housing stress** with later substance use outcomes: A systematic review	DOI: 10.1016/j.addbeh.2021.107076	Substance use	38	Several studies found association between homelessness and an increased likelihood of subsequent substance use (Calcaterra et al., 2014; Johnson and Fendrich, 2007; Linton et al., 2013; Neaigus et al., 2006; Polcin and Korcha, 2017; Riley et al., 2015; Shah et al., 2006)	⊕◯◯◯ Very low
		Harm from drug use: overdose	19	Six studies found association of homelessness with an increased likelihood of overdose death (Baggett et al., 2013, 2015; Binswanger et al., 2016; Fine et al., 2020; Kerker et al., 2011; O'Driscoll et al., 2001).	⊕◯◯◯ Very low
GRADE Table 27: **Recovery Housing**: Assessing the Evidence	DOI: 10.1176/appi.ps.201300243	Reduction in drug use	3	Areas of improvement suggested by overall positive results: Drug and alcohol use	⊕⊕◯◯ Low
		Psychosocial functioning - employment	3	Areas of improvement suggested by overall positive results: Employment	⊕⊕◯◯ Low

4.2. Evidence to decision

Table 29. Evidence to decision table

Please note * indicates evidence from overarching qualitative review by Gronholm et al, 2023

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
Priority of the problem	Is the problem a priority? The more serious a problem is, the more likely it is that an option that addresses the problem should be a priority (e.g. diseases that are fatal or disabling are likely to be a higher priority than diseases that only cause minor distress). The more people who are affected, the more likely it is that an option that addresses the problem should be a priority.			
	• Are the consequences of the problem serious (that is, severe or important in terms of the potential benefits or savings)? • Is the problem urgent? • Is it a recognized priority (such as based on a political or policy decision)? [Not relevant when an individual patient perspective is taken]	☐ No ☐ Probably no ☐ Probably yes ☒ **Yes** ☐ Varies ☐ Don't know	Drug use and drug use disorders constitute a public health, developmental and security problem both in developed and developing countries worldwide. According to the latest global estimates, about 5.5 per cent of the population aged between 15 and 64 years have used drugs at least once in the past year, while 36.3 million people, or 13 per cent of the total number of persons who use drugs, suffer from drug use disorders (UNODC, 2021). Approximately 0.5 million deaths annually attributable to drug use (UNODC, 2021).	
Desirable Effects	How substantial are the desirable anticipated effects? The larger the benefit, the more likely it is that an option should be recommended.			
	• Judgements for each outcome for which there is a desirable effect • How substantial (large) are the desirable anticipated effects (including health and other benefits) of the option (taking into account the severity or importance of the desirable consequences and the number of people affected)?	☐ Trivial ☒ **Small** ☐ Moderate ☐ Large ☐ Varies ☐ Don't know	**For Technology-based/digital recovery support** (smartphone-based app ACHESS and SMS-based D-RSS) effects were small for in reduction in risky substance use (harm from drug use outcome), with VERY LOW certainty. Mixed results for other clinical outcomes (abstinence). **For User involvement/oriented care models,** small positive outcomes were found in	The majority of the studies for **Peer Recovery Support Services** uses an observational methodology, so it is not possible to estimate the effect but there is a tendency to positive results. The minority of quantitative data shows a small magnitude

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			Occupational therapy and occupation-based therapies and for **Physical Exercise**, moderate in social functioning, harm from drug use - general health and large in harm from drug use-craving (MODERATE certainty). **MOR**E (mindfulness- Oriented Recovery Enhancement) demonstrated small favourable results in reducing harm from drug use (craving). The remaining approaches (spiritual interventions and College Programming demonstrated a tendency to positive association in reduction in substance but it is not possible to estimate size effects due to methodological limitations**. Case management** showed a trivial improvement in social functioning: mean effect 0.06 (-0.02 to 0.15) and for substance use outcomes- mean effect 0.33 (0.18 to 0.48). **Peer Recovery Support Groups** improve abstinence with small size effects (OR 1,38) and reduce risky behaviours (OR 0,46). Effectiveness of PRS for opioid use disorders remain inconclusive. **Individual Placement and Support Employment Intervention** showed small positive effects regarding psychosocial functioning, work-related and trivial effects in reduction in substance use. **Long term treatment/ community treatment** yielded a small effect (OR 1,347) in abstinence. Assertive community treatment (ACT) had mixed results for	of positive effects.

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			reduction in substance use. **Housing** was associated with small positive results in reduction in substance use and psychosocial functioning - employment. Homelessness is associated with increase in subsequent substance use and overdose death (harm from drug use).	
Undesirable Effects	How substantial are the undesirable anticipated effects? The greater the harm, the less likely it is that an option should be recommended.			
	• Judgements for each outcome for which there is an undesirable effect • How substantial (large) are the undesirable anticipated effects (including harms to health and other harms) of the option (taking into account the severity or importance of the adverse effects and the number of people affected)?	☐ Large ☐ Moderate ☐ Small ☐ Trivial ☒ **-Varies** ☐ Don't know	All the interventions studied were not associated with undesirable effects in the review accomplished, however there are examples of intrusive or unsafe services	It is essential that any recovery-oriented services are provided on a voluntary basis with respect to dignity and human rights, should ensure patient informed consent, safety, confidentiality, privacy, security, and other requirements as outlined in WHO/UNODC International Standards for the Treatment of Drug Use Disorders.
Certainty of evidence	What is the overall certainty of the evidence of effects? The less certain the evidence is for critical outcomes (those that are driving a recommendation), the less likely that an option should be recommended (or the more important it is likely to be to conduct a pilot study or impact evaluation, if it is recommended).			
	• What is the overall certainty of this evidence of effects, across all of the outcomes that are critical to making a decision? • See GRADE guidance regarding detailed judgements about the quality of evidence or certainty in estimates of effects	☐ Very low ☒ **Low** ☐ Moderate ☐ High ☐ Varies	**For Technology-based/digital recovery support** VERY LOW certainty. **For User involvement/oriented care models, Occupational therapy and occupation-based therapies**: HIGH certainty of effect in reduction of substance. For **Physical Exercise** in social functioning, harm from drug use - general health and harm from drug use, craving with MODERATE	The majority of studies included in the reviews with LOW or VERY LOW certainty of effects were reviews of observational studies. More RCT are needed on this subject. The methodological limitations are linked to poorly defined interventions,

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
			certainty. **MORE** (mindfulness- Oriented Recovery Enhancement), HIGH certainty. Spiritual interventions and College Programming in reduction in substance use: VERY LOW certainty. **Individual Placement and Support Employment Intervention** regarding psychosocial functioning, employment had a HIGH certainty of evidence and VERY LOW for reduction in substance use. **Long term treatment/ community treatment for** abstinence had a HIGH certainty. Assertive community: MODERATE certainty for reduction in substance use. **Housing** - reduction in substance use and psychosocial functioning - employment had a LOW certainty. Homelessness is associated with substance use and overdose death (harm from drug use) and poorer outcomes in abstinence with a VERY LOW certainty.	heterogenous outcomes and high risk of bias, especially selection bias in most of the studies.
Values	Is there important uncertainty about or variability in how much people value the main outcomes? The more likely it is that differences in values would lead to different decisions, the less likely it is that there will be a consensus that an option is a priority (or the more important it is likely to be to obtain evidence of the values of those affected by the option). Values in this context refer to the relative importance of the outcomes of interest (how much people value each of those outcomes). These values are sometimes called 'utility values'.			
	• Is there important uncertainty about how much people value each of the main outcomes? • Is there important variability in how much people value each of the main outcomes?	☐ Important uncertainty or variability ☐ Possibly important uncertainty or variability ☒ **Probably no important**		Reduction in substance use and thereafter improve in overall quality of life in people who have health and social problems caused by such condition is a cross-cultural value.

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
		uncertainty or variability ☐ No important uncertainty or variability		
Balance of effects	Does the balance between desirable and undesirable effects favour the intervention or the comparison? The larger the desirable effects in relation to the undesirable effects, taking into account the values of those affected (i.e. the relative value they attach to the desirable and undesirable outcomes) the more likely it is that an option should be recommended.			
	• Judgements regarding each of the four preceding criteria • To what extent do the following considerations influence the balance between the desirable and undesirable effects: - How much less people value outcomes that are in the future compared to outcomes that occur now (their discount rates)? - People's attitudes towards undesirable effects (how risk averse they are)? - People's attitudes towards desirable effects (how risk seeking they are)?	☐ Favours the comparison ☐ Probably favours the comparison ☐ Does not favour either the intervention or the comparison ☒ **Probably favours the intervention** ☐ Favours the intervention ☐ Varies ☐ Don't know		
Resources required	How large are the resource requirements (costs)? The greater the cost, the less likely it is that an option should be a priority. Conversely, the greater the savings, the more likely it is that an option should be a priority.			
	• How large is the difference in each item of resource use for which fewer resources are required? • How large is the difference in each item of resource use for which more resources are required? • How large an investment of resources would the option require or save?	☐ Large costs ☐ Moderate costs ☐ Negligible costs and savings ☐ Moderate savings ☐ Large savings ☒ **Varies**		

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
		☐ Don't know		
Certainty of evidence of required resources	What is the certainty of the evidence of resource requirements (costs)?			
	• Have all-important items of resource use that may differ between the options being considered been identified? • How certain is the evidence of differences in resource use between the options being considered (see GRADE guidance regarding detailed judgements about the quality of evidence or certainty in estimates)? • How certain is the cost of the items of resource use that differ between the options being considered? • Is there important variability in the cost of the items of resource use that differ between the options being considered?	☐ Very low ☐ Low ☐ Moderate ☐ High ☒ **No included studies**	No data found on costs of each intervention.	Probably the costs of **long-term treatment** are superior to the short-term approaches bur no data on this topic was available in the reviews. More research on this topic is needed.
Cost effectiveness	Does the cost-effectiveness of the intervention favour the intervention or the comparison? The greater the cost per unit of benefit, the less likely it is that an option should be a priority.			
	• Judgements regarding each of the six preceding criteria • Is the cost effectiveness ratio sensitive to one-way sensitivity analyses? • Is the cost effectiveness ratio sensitive to multivariable sensitivity analysis? • Is the economic evaluation on which the cost effectiveness estimate is based reliable? • Is the economic evaluation on which the cost effectiveness estimate is based applicable to the setting(s) of interest?	☐ Favours the comparison ☐ Probably favours the comparison ☐ Does not favour either the intervention or the comparison ☐ Probably favours the intervention ☐ Favours the intervention ☐ Varies ☒ **No included studies**	No reviews examining cost effectiveness identified.	Although the reviews do not bring data on costs for implementation, since all of the interventions can be provided by training peers (even occupational therapies-oriented approaches since the studies mention this aspect as well, not only trained professionals), it can be assumed that the positive impact on clinical and psychosocial function outcomes in patients would bring an overall economic advantage for the community.

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
Health equity, equality and non-discrimination	What would be the impact on health equity, equality and non-discrimination? (WHO INTEGRATE) Health equity and equality reflect a concerted and sustained effort to improve health for individuals across all populations, and to reduce avoidable systematic differences in how health and its determinants are distributed. Equality is linked to the legal principle of non-discrimination, which is designed to ensure that individuals or population groups do not experience discrimination on the basis of their sex, age, ethnicity, culture or language, sexual orientation or gender identity, disability status, education, socioeconomic status, place of residence or any other characteristics. All recommendations should be in accordance with universal human rights standards and principles. T No identifiable conflict regarding social-cultural differences in most of the interventions (occupational therapy and physical exercise are very adaptable to any culture). However, spiritual oriented interventions can be a very sensitive issue and the line between therapeutical he greater the likelihood that the intervention increases health equity and/or equality and that it reduces discrimination against any particular group, the greater the likelihood of a general recommendation in favour of this intervention.			
	• How are the condition and its determinants distributed across different population groups? Is the intervention likely to reduce or increase existing health inequalities and/or health inequities? Does the intervention prioritize and/or aid those furthest behind? • How are the benefits and harms of the intervention distributed across the population? Who carries the burden (e.g. all), who benefits (e.g. a very small sub-group)? • How affordable is the intervention for individuals, workplaces or communities? • How accessible - in terms of physical as well as informational access - is the intervention across different population groups? • Is there any suitable alternative to addressing the condition, does the intervention represent the only available option? Is this option proportionate to the need, and will it be subject to periodic review?	☐ Reduced ☐ Probably reduced ☐ Probably no impact ☒ **Probably increased** ☐ Increased ☐ Varies ☐ Don't know	The studies highlight outcomes other than abstinence alone (quality of life, for example), and this shift to a more embracing prospect of what the aim of substance use treatment is lies in the centre of the Recovery concept. This can lead to a more inclusive and tolerant view of people affected by this condition and their struggles in the path to achieve total abstinence Since SUDs are chronic conditions, having **treatment available for a longer period of time** shows to be favourable for clinical outcomes and thus bringing positive impact in sociocultural aspects of the individual and improving health equity.	If **digital and technological approaches** were available for vulnerable populations, this would represent a wider access when seeking for help. **Employment** is fundamental aspect of dignity and equality in society, especially in developing countries where, on top of the subjective well-being that having a purpose activity brings to individuals, the economic aspect of having a stable income can be life changing. For **Housing**, besides the positive effects on outcomes that are known to be favourable on health equity and social integration, housing is known to have a significant impact on human dignity and social equality

	CRITERIA, QUESTIONS	JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
Feasibility	Is the intervention feasible to implement? The less feasible (capable of being accomplished or brought about) an option is, the less likely it is that it should be recommended (i.e. the more barriers there are that would be difficult to overcome).			
	• Can the option be accomplished or brought about? • Is the intervention or option sustainable? • Are there important barriers that are likely to limit the feasibility of implementing the intervention (option) or require consideration when implementing it?	☐ No ☐ Probably no ☐ Probably yes ☐ Yes ☒ **Varies** ☐ Don't know	For **Digital Support,** the reviews highlight the favourable feasibility of this intervention, it being a positive aspect for the implementation. However, this may drastically differ in developing countries due to the lack of an existing infrastructure and technological framework, exceedingly elevating the costs and hindering the implementation.	For **Peer Support Recovery**, considering the resources would be for training the peer coaches, it is a possible intervention to implement. For **long term treatment**, a barrier may be the financial resources in places with high demand for treatment – when the financial support is scarce, longer treatments can be associated with less admissions for new patients seeking treatment.
Human rights and sociocultural acceptability	Is the intervention aligned with human rights principles and socioculturally acceptable? (WHO INTEGRATE) This criterion encompasses two distinct constructs: The first refers to an intervention's compliance with universal human rights standards and other considerations laid out in international human rights law beyond the right to health (as the right to health provides the basis of other criteria and sub-criteria in this framework). The second, sociocultural acceptability, is highly time-specific and context-specific and reflects the extent to which those implementing or benefiting from an intervention as well as other relevant stakeholder groups consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention. The greater the sociocultural acceptability of an intervention to all or most relevant stakeholders, the greater the likelihood of a general recommendation in favour of this intervention.			
	• Is the intervention in accordance with universal human rights standards and principles? • Is the intervention socioculturally acceptable to patients/beneficiaries as well as to those implementing it? To which extent do patients/beneficiaries value different non-health outcomes? • Is the intervention socioculturally acceptable to the public and other relevant stakeholder groups? Is the intervention sensitive to sex, age, ethnicity, culture or	☐ No ☐ Probably no ☒ **Probably yes** ☐ Yes ☐ Varies ☐ Don't know	**Peer support** integrates treatment approaches with the cultural specificities of each population, integrating the community and reducing the gap between people affected by the condition and those who have already managed to overcome it, thus reducing the stigma. Also, the fact that people from the community is involved in peer support leads to a more	Decent **housing** conditions are a fundamental aspect in every society, being a recognized as a human right in the 1948 Universal Declaration of Human Rights by the UN. Despite **employment** in these studies being considered in a

CRITERIA, QUESTIONS		JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
	language, sexual orientation or gender identity, disability status, education, socioeconomic status, place of residence or any other relevant characteristics? • How does the intervention affect an individual's, population group's or organization's autonomy, i.e. their ability to make a competent, informed and voluntary decision? • How intrusive is the intervention, ranging from low intrusiveness (e.g. providing information) to intermediate intrusiveness (e.g. guiding choices) to high intrusiveness (e.g. restricting or eliminating choices)? Where applicable, are high intrusiveness and/or impacts on the privacy and dignity of concerned stakeholders justified?		culturally adequate approach. No identifiable conflict regarding social-cultural differences in most of the interventions (**occupational therapy and physical exercise** are very adaptable to any culture). However, **spiritual oriented** interventions can be a very sensitive issue and the line between therapeutical intervention and cultural imposition can be frail.	formal setting, this can be extrapolated to other cultural realities when considering work as an activity done with the intention of accomplishing a purpose, something valued in all societies.

4.3. Summary of judgements

Table 30. Summary of judgements

Priority of the problem	- Don't know	- Varies		- No	- Probably No	- Probably Yes	✓ **Yes**
Desirable effects	- Don't know	Varies		- Trivial	✓ **Small**	- Moderate	- Large
Undesirable effects	- Don't know	✓ **Varies**		- Large	- Moderate	- Small	- Trivial
Certainty of the evidence	Varies			- Very low	✓ **Low**	- Moderate	- High
Values				- Important uncertainty or variability	- Possibly important uncertainty or variability	✓ **Probably no important uncertainty or variability**	No important uncertainty or variability
Balance of effects	- Don't know	- Varies	- Favours comparison	- Probably favours comparison	- Does not favour either	✓ **Probably favours the intervention**	- Favours intervention
Resources required	✓ **Don't know**	- Varies	- Large costs	- Moderate costs	- Negligible costs or savings	- Moderate savings	- Large savings
Certainty of the evidence on required resources	✓ **No included studies**			- Very low	- Low	- Moderate	- High
Cost–effectiveness	✓ **No included studies**	- Varies	- Favours comparison	- Probably favours comparison	- Does not favour either	- Probably favours the intervention	- Favours intervention
Equity, equality and non-discrimination	- Don't know	- Varies	- Reduced	Probably reduced	- Probably no impact	✓ **Probably increased**	- Increased
Feasibility	- Don't know	✓ **Varies**		- No	- Probably No	- Probably Yes	- Yes
Human rights and sociocultural acceptability	- Don't know	- Varies		- No	- Probably No	✓ **Probably Yes**	- Yes

✓Indicates category selected, - Indicates category not

5. References

Akanbi, M. O., Iroz, C. B., O'dwyer, L. C., Adovich, |, Rivera, S., Megan, |, & Mchugh, C. (2020a). A systematic review of the effectiveness of employer-led interventions for drug misuse. J Occup Health, 62, 12133. https://doi.org/10.1002/1348-9585.12133

Alessandrini, G., Ciccarelli, R., Battagliese, G., Cereatti, F., Gencarelli, S., Messina, M. P., Vitali, M., de Rosa, F., Ledda, R., Mancini, S., Attilia, M. L., & Interdisciplinary Study Group CRARL - SITAC - SIPaD - SITD - SIPDip. (n.d.). Treatment of alcohol dependence. Alcohol and homelessness: social point of view. Rivista Di Psichiatria, 53(3), 107–112. https://doi.org/10.1708/2925.29411

Apostolidis, T., Birmes, P., Bosetti, T., Bouloudnine, R., Debieve, J., Falissard, B., Greacen, T., Lancon, C., le Cardinal, P., Mantovani, J., Moreau, D., Naudin, J., Videau, B., & Loundou, A. (n.d.). Epidemiology and Psychiatric Sciences. https://doi.org/10.1017/S2045796022000026

Austin, A. E., Shiue, K. Y., Naumann, R. B., Figgatt, M. C., Gest, C., & Shanahan, M. E. (2021a). Associations of housing stress with later substance use outcomes: A systematic review. Addictive Behaviors, 123, 107076. https://doi.org/10.1016/J.ADDBEH.2021.107076

Bassuk, E. L., Hanson, J., Greene, R. N., Richard, M., & Laudet, A. (2016). Peer-Delivered Recovery Support Services for Addictions in the United States: A Systematic Review. Journal of Substance Abuse Treatment, 63, 1–9. https://doi.org/10.1016/j.jsat.2016.01.003

Beaulieu, M., Tremblay, J., Baudry, C., Pearson, J., & Bertrand, K. (2021). A systematic review and meta-analysis of the efficacy of the long-term treatment and support of substance use disorders. Social Science & Medicine, 285, 114289. https://doi.org/10.1016/J.SOCSCIMED.2021.114289

Beck, A. K., Forbes, E., Baker, A. L., Kelly, P. J., Deane, F. P., Shakeshaft, A., Hunt, D., & Kelly, J. F. (2017a). Systematic review of SMART Recovery: Outcomes, process variables, and implications for research. Psychology of Addictive Behaviors, 31(1), 1–20. https://doi.org/10.1037/adb0000237

Beck, A. K., Forbes, E., Baker, A. L., Kelly, P. J., Deane, F. P., Shakeshaft, A., Hunt, D., & Kelly, J. F. (2017b). Systematic review of SMART Recovery: Outcomes, process variables, and implications for research. Psychology of Addictive Behaviors, 31(1), 1–20. https://doi.org/10.1037/adb0000237

Beraldo, L., Gil, F., Ventriglio, A., de Andrade, A. G., da Silva, A. G., Torales, J., Gonçalves, P. D., Bhugra, D., & Castaldelli-Maia, J. M. (2019). Spirituality, Religiosity and Addiction Recovery: Current Perspectives. Current Drug Research Reviews, 11(1), 26–32. https://doi.org/10.2174/1874473711666180612075954

Bjornestad, J., Mckay, J. R., Berg, H., Moltu, C., & Sverre Nesvåg, &. (2020a). How often are outcomes other than change in substance use measured? A systematic review of outcome measures in contemporary randomised controlled trials. https://doi.org/10.1111/dar.13051

Broekaert, E., & Vanderplasschen, W. (2003). Towards the Integration of Treatment Systems for Substance Abusers: Report on the Second International Symposium on Substance Abuse Treatment and Special Target Groups. Journal of Psychoactive Drugs, 35(2), 237–245. https://doi.org/10.1080/02791072.2003.10400005

Carvalho, A. P., & Furtado, J. P. (2022). Fatores contextuais e implantação da intervenção Housing First: uma revisão da literatura. Ciência & Saúde Coletiva, 27(1), 133–150. https://doi.org/10.1590/1413-81232022271.19642021

Collins, S. E. (2016). Associations Between Socioeconomic Factors and Alcohol Outcomes. Alcohol Research : Current Reviews, 38(1), 83–94.

Cosottile, D. W., & DeFulio, A. (2020). The compatibility of employment-based contingency management and vocational services at the Department of Veterans Affairs. Psychology of Addictive Behaviors, 34(1), 111–116. https://doi.org/10.1037/adb0000479

Cucciare, M., Weingardt, K., & Humphreys, K. (2009). How Internet Technology Can Improve the Quality of Care for Substance Use Disorders. Current Drug Abuse Reviewse, 2(3), 256–262. https://doi.org/10.2174/1874473710902030256

de Andrade, D., Elphinston, R. A., Quinn, C., Allan, J., & Hides, L. (2019). The effectiveness of residential treatment services for individuals with substance use disorders: A systematic review. Drug and Alcohol Dependence, 201, 227–235. https://doi.org/10.1016/J.DRUGALCDEP.2019.03.031

de Oliveira, C., Cho, E., Kavelaars, R., Jamieson, M., Bao, B., & Rehm, J. (2020). Economic analyses of mental health and substance use interventions in the workplace: a systematic literature review and narrative synthesis. The Lancet Psychiatry, 7(10), 893–910. https://doi.org/10.1016/S2215-0366(20)30145-0

Dennis, M. L., Scott, C. K., & Laudet, A. (n.d.). HOT TOPIC Beyond Bricks and Mortar: Recent Research on Substance Use Disorder Recovery Management. https://doi.org/10.1007/s11920-014-0442-3

Derefinko, K. J., Salgado García, F. I., & Sumrok, D. D. (2018). Smoking Cessation for Those Pursuing Recovery from Substance Use Disorders. Medical Clinics of North America, 102(4), 781–796. https://doi.org/10.1016/J.MCNA.2018.02.014

Donovan, D. M., Ingalsbe, M. H., Benbow, J., & Daley, D. C. (2013). 12-Step Interventions and Mutual Support Programs for Substance Use Disorders: An Overview. Social Work in Public Health, 28(3–4), 313–332. https://doi.org/10.1080/19371918.2013.774663

Eddie, D., Hoffman, L., Vilsaint, C., Abry, A., Bergman, B., Hoeppner, B., Weinstein, C., & Kelly, J. F. (2019). Lived experience in new models of care for substance use disorder: A systematic review of peer recovery support services and recovery coaching. In Frontiers in Psychology (Vol. 10, Issue JUN). Frontiers Media S.A. https://doi.org/10.3389/fpsyg.2019.01052

Epidemiology and Psychiatric Sciences. (n.d.). https://doi.org/10.1017/S2045796020000785

Fries, H. P., & Rosen, M. I. (2011). The Efficacy of Assertive Community Treatment to Treat Substance Use. Journal of the American Psychiatric Nurses Association, 17(1), 45–50. https://doi.org/10.1177/1078390310393509

Galaj, E., Barrera, E. D., & Ranaldi, R. (n.d.). Therapeutic efficacy of environmental enrichment for substance use disorders. https://doi.org/10.1016/j.pbb.2019.172829

Giménez-Meseguer, J., Tortosa-Martínez, J., & Cortell-Tormo, J. M. (n.d.). The Benefits of Physical Exercise on Mental Disorders and Quality of Life in Substance Use Disorders Patients. Systematic Review and Meta-Analysis. https://doi.org/10.3390/ijerph17103680

Giménez-Meseguer, J., Tortosa-Martínez, J., & Cortell-Tormo, J. M. (2020). The Benefits of Physical Exercise on Mental Disorders and Quality of Life in Substance Use Disorders Patients. Systematic Review and Meta-Analysis. International Journal of Environmental Research and Public Health, 17(10). https://doi.org/10.3390/ijerph17103680

Goldberg, S. B., Pace, B., Griskaitis, M., Willutzki, R., Skoetz, N., Thoenes, S., Zgierska, A. E., & Rösner, S. (2021). Mindfulness-based interventions for substance use disorders. Cochrane Database of Systematic Reviews, 2021(10). https://doi.org/10.1002/14651858.CD011723.pub2

Greenfield, S. F., Sugarman, D. E., Freid, C. M., Bailey, G. L., Crisafulli, M. A., Kaufman, J. S., Wigderson, S., Connery, H. S., Rodolico, J., Morgan-Lopez, A. A., & Fitzmaurice, G. M. (2014). Group therapy for women with substance use disorders: Results from the Women's Recovery Group Study. Drug and Alcohol Dependence, 142, 245–253. https://doi.org/10.1016/j.drugalcdep.2014.06.035

Gronholm, P.C., Makhmud, A., Barbui, C., et al Qualitative evidence regarding the experience of receiving and providing care for mental health conditions in non-specialist settings in low-income and middle-income countries: a systematic review of reviews. BMJ Ment Health 2023;26:e300755.

Gruber, K. J., & Fleetwood, T. W. (2004). In-Home Continuing Care Services for Substance Use Affected Families. Substance Use & Misuse, 39(9), 1379–1403. https://doi.org/10.1081/JA-120039395

Harrison, J., Krieger, M. J., & Johnson, H. A. (2020a). Review of Individual Placement and Support Employment Intervention for Persons with Substance Use Disorder. Substance Use & Misuse, 55(4), 636–643. https://doi.org/10.1080/10826084.2019.1692035

Harrison, J., Krieger, M. J., & Johnson, H. A. (2020b). Review of Individual Placement and Support Employment Intervention for Persons with Substance Use Disorder. Substance Use & Misuse, 55(4), 636–643. https://doi.org/10.1080/10826084.2019.1692035

Harrison, J., Krieger, M. J., & Johnson, H. A. (2020c). Review of Individual Placement and Support Employment Intervention for Persons with Substance Use Disorder. Substance Use & Misuse, 55(4), 636–643. https://doi.org/10.1080/10826084.2019.1692035

Hellström, L., Pedersen, · Pernille, Thomas, ·, Christensen, N., Iben, ·, Wallstroem, G., Anders, ·, Bojesen, B., Stenager, E., Bejerholm, U., Jooske Van Busschbach, ·, Michon, · Harry, Kim, ·, Mueser, T., Silje, ·, Reme, E., White, S., Lene, ·, & Eplov, F. (2021a). Vocational Outcomes of the Individual Placement and Support Model in Subgroups of Diagnoses, Substance Abuse, and Forensic Conditions: A Systematic Review and Analysis of Pooled Original Data. Journal of Occupational Rehabilitation, 31, 699–710. https://doi.org/10.1007/s10926-021-09960-z

Henkel, D. (2011). Unemployment and Substance Use: A Review of the Literature (1990-2010). Current Drug Abuse Reviewse, 4(1), 4–27. https://doi.org/10.2174/1874473711104010004

Inanlou, M., Bahmani, B., Farhoudian, A., & Rafiee, F. (n.d.). Addiction Recovery: A Systematized Review.

Ingram, I., Kelly, P. J., Deane, F. P., Baker, A. L., Goh, M. C. W., Raftery, D. K., & Dingle, G. A. (2020). Loneliness among people with substance use problems: A narrative systematic review. Drug and Alcohol Review, 39(5), 447–483. https://doi.org/10.1111/dar.13064

Jason, L. A., Davis, M. I., Ferrari, J. R., & Bishop, P. D. (2001). Oxford House: A Review of Research and Implications for Substance Abuse Recovery and Community Research. Journal of Drug Education, 31(1), 1–27. https://doi.org/10.2190/TMNP-M3CC-BUPN-9EE6

Jason, L. A., Olson, B. D., Ferrari, J. R., Majer, J. M., Alvarez, J., & Stout, J. (2007). An examination of main and interactive effects of substance abuse recovery housing on multiple indicators of adjustment. Addiction, 102(7), 1114–1121. https://doi.org/10.1111/j.1360-0443.2007.01846.x

Kerman, N., Polillo, A., Bardwell, G., Gran-Ruaz, S., Savage, C., Felteau, C., & Tsemberis, S. (2021). Harm reduction outcomes and practices in Housing First: A mixed-methods systematic review. Drug and Alcohol Dependence, 228, 109052. https://doi.org/10.1016/J.DRUGALCDEP.2021.109052

Kim, H. S., Hodgins, D. C., Garcia, X., Ritchie, E. v., Musani, I., McGrath, D. S., & von Ranson, K. M. (2021). A systematic review of addiction substitution in recovery: Clinical lore or empirically-based? Clinical Psychology Review, 89, 102083. https://doi.org/10.1016/J.CPR.2021.102083

Kirst, M., Friesdorf, R., Ta, M., Amiri, A., Hwang, S. W., Stergiopoulos, V., & O'Campo, P. (2020). Patterns and effects of social integration on housing stability, mental health and substance use outcomes among participants in a randomized controlled Housing First trial. Social Science & Medicine, 265, 113481. https://doi.org/10.1016/j.socscimed.2020.113481

Linke, S. E., & Ussher, M. (2015a). Exercise-based treatments for substance use disorders: Evidence, theory, and practicality. American Journal of Drug and Alcohol Abuse, 41(1). https://doi.org/10.3109/00952990.2014.976708

Linke, S. E., & Ussher, M. (2015b). The American Journal of Drug and Alcohol Abuse Exercise-based treatments for substance use disorders: evidence, theory, and practicality Exercise-based treatments for substance use disorders: evidence, theory, and practicality. Am J Drug Alcohol Abuse, 41(1), 7–15. https://doi.org/10.3109/00952990.2014.976708

Magura, S., & Marshall, T. (2020a). The Effectiveness of Interventions Intended to Improve Employment Outcomes for Persons with Substance Use Disorder: An Updated Systematic Review. Substance Use & Misuse, 55(13), 2230–2236. https://doi.org/10.1080/10826084.2020.1797810

Magura, S., Staines, G. L., Blankertz, L., & Madison, E. M. (2004). The Effectiveness of Vocational Services for Substance Users in Treatment. Substance Use & Misuse, 39(13–14), 2165–2213. https://doi.org/10.1081/JA-200034589

Mahboub, N., Rizk, R., Karavetian, M., & de Vries, N. (n.d.). Nutritional status and eating habits of people who use drugs and/or are undergoing treatment for recovery: a narrative review. https://doi.org/10.1093/nutrit/nuaa095

Marsch, L. A. (2012). Leveraging Technology to Enhance Addiction Treatment and Recovery. Journal of Addictive Diseases, 31(3), 313–318. https://doi.org/10.1080/10550887.2012.694606

Mccollister, K. E., French, M. T., Freitas, D. M., Dennis, M. L., Scott, C. K., & Funk, R. R. (2012a). Cost-Effectiveness analysis of Recovery Management Checkups (RMC) for adults with chronic substance use disorders: evidence from a four-year randomized trial. Addiction Health Services Research Annual Conference, 108(12). https://doi.org/10.1111/add.12335

McLellan, A. T., McKay, J. R., Forman, R., Cacciola, J., & Kemp, J. (2005). Reconsidering the evaluation of addiction treatment: from retrospective follow-up to concurrent recovery monitoring. Addiction, 100(4), 447–458. https://doi.org/10.1111/j.1360-0443.2005.01012.x

Meara, E. (2006). Welfare Reform, Employment, and Drug and Alcohol Use Among Low-Income Women. Harvard Review of Psychiatry, 14(4), 223–232. https://doi.org/10.1080/10673220600883150

Miguel, A. Q. C., Kiluk, B. D., Roos, C. R., Babuscio, T. A., Nich, C., Mari, J. J., & Carroll, K. M. (2019). Change in employment status and cocaine use treatment outcomes: A secondary analysis across six clinical trials. Journal of Substance Abuse Treatment, 106, 89–96. https://doi.org/10.1016/j.jsat.2019.09.002

Moe, F. D., Moltu, C., Mckay, J. R., Nesvåg, S., & Bjornestad, J. (2021). COMPREHENSIVE REVIEW Is the relapse concept in studies of substance use disorders a “one size fits all” concept? A systematic review of relapse operationalisations. https://doi.org/10.1111/dar.13401

Multimedia Appendix 2. Intervention retention, feasibility and effects. (n.d.).

(No Title). (n.d.). https://doi.org/10.1177/1178221820976988

Orsolini, L., Carrà, G., Vanderplasschen, W., Rapp, R. C., de Maeyer, J., Van, W., & Noortgate, D. (2019). A Meta-Analysis of the Efficacy of Case Management for Substance Use Disorders: A Recovery Perspective. Frontiers in Psychiatry | Www.Frontiersin.Org, 1, 186. https://doi.org/10.3389/fpsyt.2019.00186

Pedroza Molina, D. Y., Taborda Mazo, D. P., & Varela Chacón, J. (2020). Consumo de sustancias psicoactivas desde la perspectiva de la terapia familiar. Poiésis, 39, 53. https://doi.org/10.21501/16920945.3752

Penzenstadler, L., Soares, C., Anci, E., Molodynski, A., & Khazaal, Y. (2019). Effect of Assertive Community Treatment for Patients with Substance Use Disorder: A Systematic Review. In European Addiction Research (Vol. 25, Issue 2, pp. 56–67). S. Karger AG. https://doi.org/10.1159/000496742

Perry, A. E., Martyn-St James, M., Burns, L., Hewitt, C., Glanville, J. M., Aboaja, A., Thakkar, P., Santosh Kumar, K. M., Pearson, C., & Wright, K. (2019). Interventions for female drug-using offenders. Cochrane Database of Systematic Reviews, 2019(12). https://doi.org/10.1002/14651858.CD010910.pub3

Rash, C. J., Alessi, S. M., & Petry, N. M. (2017). Substance Abuse Treatment Patients in Housing Programs Respond to Contingency Management Interventions. Journal of Substance Abuse Treatment, 72, 97–102. https://doi.org/10.1016/j.jsat.2016.07.001

Reif, S., Braude, L., Lyman, D. R., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Salim, O., & Delphin-Rittmon, M. E. (2014). Peer Recovery Support for Individuals With Substance Use Disorders: Assessing the Evidence. Psychiatric Services, 65(7), 853–861. https://doi.org/10.1176/appi.ps.201400047

Reif, S., George, P., Braude, L., Dougherty, R. H., Daniels, A. S., Ghose, S. S., & Delphin-Rittmon, M. E. (2014a). Recovery Housing: Assessing the Evidence. Psychiatric Services, 65(3), 295–300. https://doi.org/10.1176/appi.ps.201300243

Reif, S., George, P., Braude, L., Dougherty, R. H., Daniels, A. S., Sushmita Shoma Ghose, E., & Delphin-Rittmon, M. E. (n.d.). Assessing the Evidence Base Series Residential Treatment for Individuals With Substance Use Disorders: Assessing the Evidence. https://doi.org/10.1176/appi.ps.201300242

Renbarger, K. M., Shieh, C., Moorman, M., Latham-Mintus, K., & Draucker, C. (2020a). Health Care Encounters of Pregnant and Postpartum Women with Substance Use Disorders. Western Journal of Nursing Research, 42(8), 612–628. https://doi.org/10.1177/0193945919893372

Room, ma, J. A. (1998). Work and Identity in Substance Abuse Recovery. Journal of Substance Abuse Treatment, 15(1), 65–74. https://doi.org/10.1016/S0740-5472(97)00250-X

Rosenberg, H., Grant, J., & Davis, A. K. (2020). Acceptance of Non-Abstinence as an Outcome Goal for Individuals Diagnosed With Substance Use Disorders: A Narrative Review of Published Research. Journal of Studies on Alcohol and Drugs, 81(4), 405–415.

Rudolph, K. E., Gimbrone, C., & Díaz, I. (2021). Helped into Harm. Epidemiology, 32(3), 336–346. https://doi.org/10.1097/EDE.0000000000001334

Rudolph, K. E., Sofrygin, O., Schmidt, N. M., Crowder, R., Glymour, M. M., Ahern, J., & Osypuk, T. L. (2018). Mediation of Neighborhood Effects on Adolescent Substance Use by the School and Peer Environments. Epidemiology, 29(4), 590–598. https://doi.org/10.1097/EDE.0000000000000832

Russell Schutt, P. K., Schultz, M., Mitchell-Miland, C., McCarthy, S., Chinman, M., & Ellison, M. (2021). Explaining Service Use and Residential Stability in Supported Housing. www.lww-medicalcare.com

Sanchez, Z. van der M., & Nappo, S. A. (2007). A religiosidade, a espiritualidade e o consumo de drogas. Archives of Clinical Psychiatry (São Paulo), 34, 73–81. https://doi.org/10.1590/S0101-60832007000700010

Sancho, M., de Gracia, M., Rodríguez, R. C., Mallorquí-Bagué, N., Sánchez-González, J., Trujols, J., Sánchez, I., Jiménez-Murcia, S., & Menchón, J. M. (2018). Mindfulness-Based Interventions for the Treatment of Substance and Behavioral Addictions: A Systematic Review. Frontiers in Psychiatry, 9. https://doi.org/10.3389/fpsyt.2018.00095

Secades-Villa, R., Aonso-Diego, G., García-Pérez, Á., & González-Roz, A. (2020). Effectiveness of contingency management for smoking cessation in substance users: A systematic review and meta-analysis. Journal of Consulting and Clinical Psychology, 88(10), 951–964. https://doi.org/10.1037/ccp0000611

Sobell, L. C., Ellingstad, T. P., & Sobell, M. B. (2000). Natural recovery from alcohol and drug problems: methodological review of the research with suggestions for future directions. Addiction, 95(5), 749–764. https://doi.org/10.1046/j.1360-0443.2000.95574911.x

Spiehs, J., & Conner, · Stacy. (2018). Considerations for substance-use disorder language: cultivating a shift from “addicts in recovery” to “people who thrive.” J Public Health Pol, 39, 372–378. https://doi.org/10.1057/s41271-018-0127-y

Steyn, S. F., Brand, L., & Wolmarans, D. (2019). Exercise, illness and drug use: Guiding principles for approaching a complex triad. In South African Family Practice (Vol. 61, Issue 4, pp. 14–18). AOSIS (pty) Ltd. https://doi.org/10.4102/SAFP.V61I4.4953

Tracy, K., & Wallace, S. (2016). Benefits of peer support groups in the treatment of addiction. Substance Abuse and Rehabilitation, Volume 7, 143–154. https://doi.org/10.2147/sar.s81535

Valeri, L., Sugarman, D. E., Reilly, M. E., McHugh, R. K., Fitzmaurice, G. M., & Greenfield, S. F. (2018). Group therapy for women with substance use disorders: In-session affiliation predicts women’s substance use treatment outcomes. Journal of Substance Abuse Treatment, 94, 60–68. https://doi.org/10.1016/j.jsat.2018.08.008

Vest, N., Reinstra, M., Timko, C., Kelly, J., & Humphreys, K. (2021a). College programming for students in addiction recovery: A PRISMA-guided scoping review. Addictive Behaviors, 121, 106992. https://doi.org/10.1016/J.ADDBEH.2021.106992

Walton-Moss, B., Ray, E. M., & Woodruff, K. (2013). Relationship of Spirituality or Religion to Recovery From Substance Abuse. Journal of Addictions Nursing, 24(4), 217–226. https://doi.org/10.1097/JAN.0000000000000001

Wasmuth, S., Pritchard, K., & Kaneshiro, K. (2016). Occupation-Based Intervention for Addictive Disorders: A Systematic Review. Journal of Substance Abuse Treatment, 62, 1–9. https://doi.org/10.1016/j.jsat.2015.11.011

Watson, D. P., Shuman, V., Kowalsky, J., Golembiewski, E., & Brown, M. (n.d.). Housing First and harm reduction: a rapid review and document analysis of the US and Canadian open-access literature. https://doi.org/10.1186/s12954-017-0158-x

Wienemann, E., & Wartmann, A. (n.d.). Alkoholprävention am Arbeitsplatz: Aktuelle Konzepte zur betrieblichen Suchtprävention und Suchthilfe Einleitung. Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz. https://doi.org/10.1007/s00103-021-03337-6

Appendix I: Search terms used to identify systematic reviews

- Terms: Recovery-oriented practices OR Recovery Management Check-ups OR Cycle of relapse OR Treatment re-entry and recovery OR Recovery management AND Substance use disorder OR SUD AND "systematic review"
- Additional search terms: ((((((recovery) OR (recovery-oriented practices)) OR (housing)) OR (employment)) OR (recovery self-assessment))