SWEDISH AGENCY FOR HEALTH TECHNOLOGY ASSESSMENT AND ASSESSMENT OF SOCIAL SERVICES

English Summary

Interventions for adults with co-occurring addictive and psychiatric disorders: A systematic review including health economic and ethical aspects

May 2025. The full report in Swedish (www.sbu.se/372)

Main message

Psychological and psychosocial treatment can reduce both substance use and psychiatric symptoms in patients with comorbidity between addiction and other psychiatric conditions. However, there is a significant lack of scientific evidence regarding the effects of pharmacological treatment for this population.

Conclusions

- Psychological and psychosocial treatment, particularly contingency management, may reduce substance use in patients with addiction and co-occurring severe mental illnesses such as schizophrenia or bipolar disorder. In cases of comorbidity between addiction and depression, anxiety disorders, or post-traumatic stress disorder, psychological and psychosocial treatment may lead to reductions in both substance use and psychiatric symptoms. This is especially evident for cognitive behavioral therapy and integrated treatments (treatments that target both substance use and the co-occurring psychiatric condition).
- Naltrexone may reduce alcohol consumption in individuals with alcohol dependence and another comorbid psychiatric disorder, without any apparent negative effect on the psychiatric condition.
- More research is needed on the treatment of specific comorbid combinations, particularly regarding pharmacological interventions. Further research is also needed on treatment addressing psychiatric disorders and co-occurring gambling disorder, as well as any addictive condition in combination with specific psychiatric disorders such as: anxiety disorders, obsessive-compulsive disorder, neuropsychiatric disorders, personality disorders, and eating disorders. In addition, there is a need for research on coordinated care interventions and social support measures for people with dual diagnoses.
- The lack of evidence for the treatment of specific comorbidities should not preclude offering care to individuals with comorbidity, as substance use disorders and co-occurring psychiatric conditions interact in ways that, if left untreated, often lead to a negative cycle and worsening of both conditions.
- Results from studies investigating treatment for either condition alone may, in some cases, be considered the best available knowledge to inform treatment of individuals with co-occurring disorders.

Aim

The aim of this systematic review is to evaluate the scientific evidence for any form of treatment targeting adults with addiction in combination with at least one other psychiatric disorder. The review also includes an analysis of health economic aspects as well as an ethical discussion of the findings.

Background

Co-occurrence of a substance use disorder, and one or more other psychiatric conditions is common and is often associated with significantly poorer health and quality of life, worse treatment prognosis, and an increased risk of premature death compared to having only one of the conditions. This type of comorbidity is also associated with increased burden on family members and substantial costs for society. At the same time, it is important to acknowledge that individuals with comorbid disorders do not represent a homogeneous group; symptom severity and overall functioning can vary widely between individuals.

Method

We conducted a systematic review and reported in accordance with the PRISMA statement. The protocol is registered in Prospero (CRD42022382508). The certainty of evidence was assessed with GRADE.
Inclusion criteria (PICO)

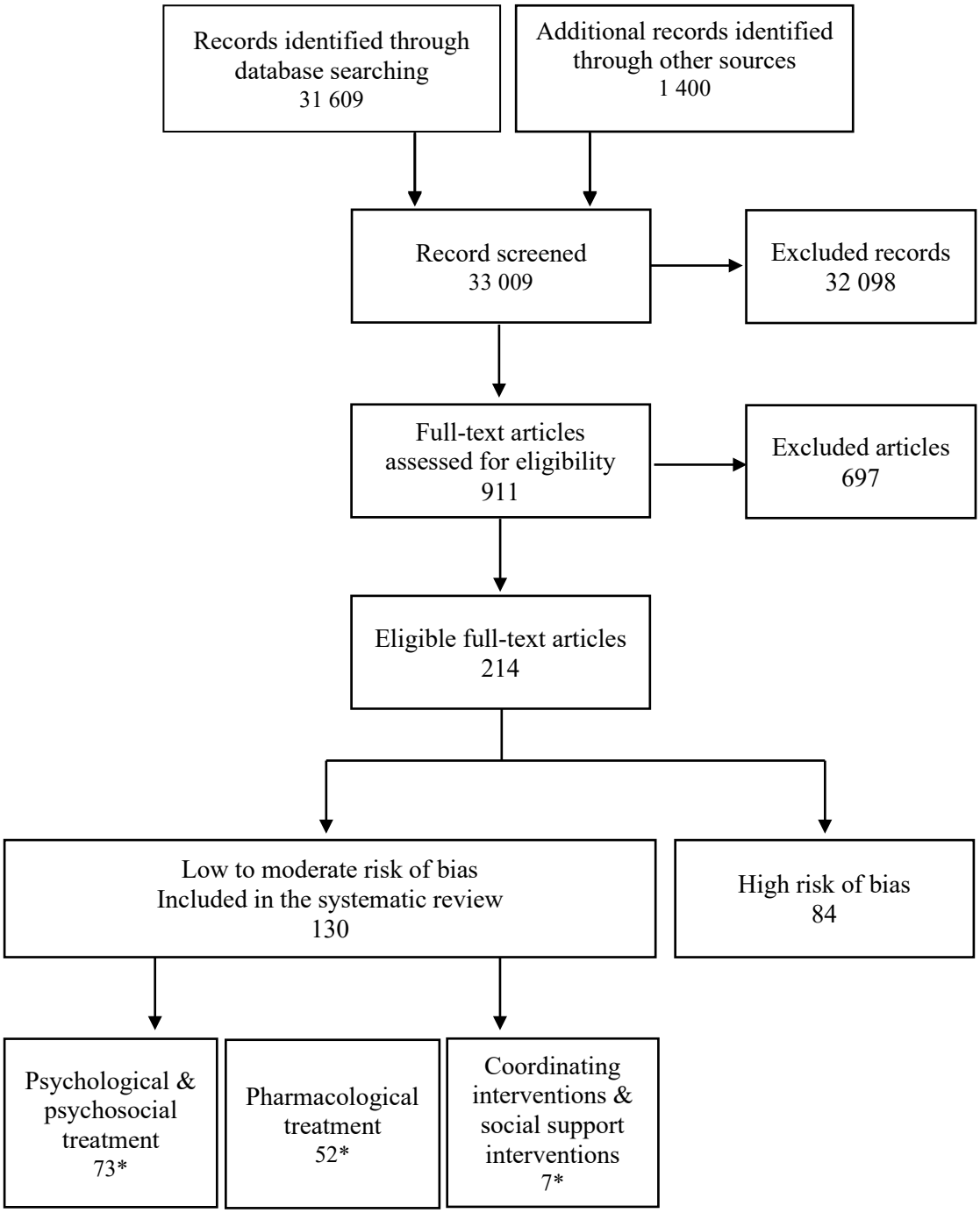
Population: Adults with diagnosed with a substance use disorder or gambling disorder in combination with at least one other psychiatric diagnosis
Intervention: Any pharmacological, psychological, psychosocial or social support interventions*
Control: Any treatment or no treatment
Outcome: Any of the following: substance use, mental health symptoms, function, quality of life
Study design: Randomized controlled trial (RCT)
Language: English, Swedish, Norwegian, Danish
Databases searched: CINAHL (EBSCO), Cochrane Library (Wiley), Embase (Elsevier), Medline (OvidSP), PsycINFO (EBSCO) and Scopus (Elsevier)
Patient involvement: A reference group comprising diverse stakeholders – including former patients with lived experience, clinicians, health care providers and decision makers - provided feedback on the project plan and the ethical discussion.

*Studies of social support interventions needed to report outcomes for substance use to be included.

Results

A total of 120 studies, reported across 130 research papers, focusing on the treatment of adults with dual diagnoses were included. Psychological and psychosocial treatments, pharmacological interventions, as well as coordinating interventions (e.g., case management) and social support interventions, were reported separately.
Psychological and psychosocial treatments were compared either to treatment as usual or to another active intervention. The results were further categorized into four diagnostic groups: (1) severe mental illness (bipolar disorder or schizophrenia), (2) depression, anxiety, or PTSD, (3) ADHD, and (4) personality disorders. Pharmacological treatments were assessed based on the specific active pharmacological agent investigated and the combination of psychiatric diagnosis and primary substance use diagnosis (see Figure 3).
Due to heterogeneity across studies—including variations in population characteristics, interventions, and outcome measures—the results were synthesized narratively without meta-analysis.

Figure 1 Flowchart.



*Some studies report on multiple treatment interventions.

Table 1 Summary of findings (main results) for psychological and psychosocial treatment compared to treatment as usual for adults with addiction and comorbid severe mental illness.

Treatment	Follow up	Outcome	Grade	Interpretation
Psychological or psychosocial treatment (any, main analysis)	0-3 months post baseline	Per cent days abstinent	⨁⨁◯◯	More days abstinent
Contingency management (subgroup analysis)	0-3 months post baseline	Per cent days abstinent	⨁⨁◯◯	More days abstinent

Table 2 Summary of findings (main results) for psychological and psychosocial treatment compared to treatment as usual for adults with addiction and comorbid depression, anxiety, or ptsd.

Treatment	Follow up	Outcome	Grade	Interpretation
Psychological or psychosocial treatment (any, main analysis)	3-12 months post baseline	Per cent days abstinent	⨁⨁◯◯	More days abstinent
CBT (subgroup analysis)	3-12 months post baseline	Per cent days abstinent	⨁⨁◯◯	More days abstinent
Integrated treatment (subgroup analysis)	3-12 months post baseline	Per cent days abstinent	⨁⨁◯◯	More days abstinent
Psychological or psychosocial treatment (any, main analysis)	0-3 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Less symptoms
CBT (subgroup analysis)	0-3 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Less symptoms
Integrated treatment (subgroup analysis)	0-3 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Less symptoms
Psychological or psychosocial treatment (any, main analysis)	3-12 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Less symptoms
CBT (subgroup analysis)	3-12 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Less symptoms

Integrated treatment (subgroup analysis)	3-12 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Less symptoms

Abbreviations: CBT = cognitive behavioral therapy, Integrated treatment = treatment with focus on both addiction and other psychiatric symptoms

Table 3 Summary of findings (main results) for active comparison between psychological or psychosocial treatments for adults with addiction and comorbid depression, anxiety, or ptsd.

Treatment	Follow up	Outcome	Grade	Interpretation
CBT compared to other psychological or psychosocial treatment	3-12 months post baseline	Per cent days abstinent	⨁⨁◯◯	CBT is at least as good as other kinds of psychological or psychosocial treatment
Integrated treatment compared to addiction treatment alone	3-12 months post baseline	Per cent days abstinent	⨁⨁◯◯	Integrated treatment is not better than addiction treatment alone
CBT compared to other psychological or psychosocial treatment	0-3 months post baseline	Psychiatric symptoms	⨁◯◯◯	The evidence is very uncertain about CBT compared to other kinds of psychological or psychosocial treatment
Integrated treatment compared to addiction treatment alone	0-3 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Integrated treatment is at least as good as addiction treatment alone
CBT compared to other psychological or psychosocial treatment	3-12 months post baseline	Psychiatric symptoms	⨁◯◯◯	The evidence is very uncertain about CBT compared to other kinds of psychological or psychosocial treatment
Integrated treatment compared to addiction treatment alone	3-12 months post baseline	Psychiatric symptoms	⨁⨁◯◯	Integrated treatment is at least as good as addiction treatment alone

Abbreviations: CBT = cognitive behavioral therapy, Integrated treatment = treatment with focus on both addiction and other psychiatric symptoms

Health economic aspects

Health economic studies analyzing costs, resource utilization, and quality of life indicate that dual diagnoses are associated with increased healthcare and judicial system costs, as well as resource use, compared to having a single or no psychiatric or substance use disorder diagnosis. Furthermore, while a psychiatric diagnosis alone negatively impacts the person's quality of life, the presence of concurrent substance use appears to exacerbate this decline.

In the systematic review of health economic literature, two studies were identified that evaluated the cost-effectiveness of contingency management for individuals with severe mental illness. These health economic analyses were based on randomized controlled trials conducted in England and the United States.

Ethics

Research on interventions for individuals with co-occurring substance use disorders and mental health conditions must be guided by the care and support needs of this population. It is therefore essential to consider the living conditions of the target group, alongside broader societal and healthcare system factors. Stigmatization and discrimination are pervasive challenges faced daily by many individuals within this group. This discussion emphasizes ethical issues arising at the intersection of users' needs, evidence-based knowledge, and the interventions provided. Research in this area involves several ethically significant concerns, often related to the vulnerable position of individuals with dual diagnoses.

Discussion

Interpreting treatment studies on individuals with comorbid substance use and other psychiatric disorders is challenging due to variations in diagnoses, symptom severity, and intervention types. Despite these challenges and the considerable heterogeneity among studies, this systematic review suggests that several psychological, psychosocial, and certain pharmacological treatments may offer benefits. However, the diversity of study designs and populations make it difficult to draw definitive conclusions regarding effect sizes or to identify the most effective treatments for specific comorbidity profiles. Substantial knowledge gaps persist, as high-quality research is often scarce or yields inconclusive findings. Nonetheless, early access to care remains essential given the substantial negative impact of comorbidity on health outcomes and quality of life.

Conflict of Interest

In accordance with SBU's requirements, the experts and scientific reviewers participating in this project have submitted statements about conflicts of interest. These documents are available at SBU's secretariat. SBU has determined that the conditions described in the submissions are compatible with SBU's requirements for objectivity and impartiality.

Appendices

- Search strategies (https://www.sbu.se/contentassets/3f6efaada75c454ebee5e59744199dac/appendix-1-search-strategies.pdf)
- Excluded references (https://www.sbu.se/contentassets/3f6efaada75c454ebee5e59744199dac/appendix-2-excluded-studies.pdf)
- Studies not included in analysis due to Risk of Bias (https://www.sbu.se/contentassets/3f6efaada75c454ebee5e59744199dac/appendix-3-studies-with-critical-or-high-risk-of-bias.pdf)
- Characteristics of included studies (https://www.sbu.se/contentassets/3f6efaada75c454ebee5e59744199dac/appendix-4-characteristics-of-included-studies.xlsx and https://www.sbu.se/contentassets/3f6efaada75c454ebee5e59744199dac/appendix-5-characteristics-of-included-pharmacology-studies.pdf)