introduction

Despite cannabis being the most widely used illicit drug in the Western world\(^1,2\), controlled trials for cannabis use disorder have been reported in the literature only in the last 15 years. Although many clinicians continue to conclude that the relatively mild withdrawal syndrome associated with cannabis indicates that dependence is unlikely and treatment is unnecessary, research suggests that a substantial proportion of cannabis users develop cannabis-related problems, including abuse and dependence\(^2,3-6\). Despite these trends, only a minority seek assistance from a health professional\(^2\), however, demand for treatment for cannabis use disorder is increasing internationally\(^8\).

pharmacological interventions

There are no randomised control trials (RCTs) of pharmacological interventions for cannabis withdrawal or craving. The results of less methodologically rigorous studies suggest that oral delta 9-tetrahydrocannabinol (THC)\(^9,10\), and possibly mirtazapine\(^11\) and lithium\(^12\), are promising for cannabis withdrawal, and that rimonobant\(^13\) and perhaps buspirone\(^14\) show potential in the management of cannabis craving. Buproprion\(^15\), nefazodone\(^16\), divalproex\(^17,17\), naltrexone\(^18\) and atomoxetine\(^19\) appear less promising for cannabis withdrawal or craving. Also, early indications suggest that oral THC is ineffective in the management of cannabis craving\(^9\).

psychological interventions

A series of RCTs of psychotherapeutic approaches to managing cannabis dependence have been conducted. In general, these suggest that cognitive behavioural therapy (CBT) and motivational enhancement therapy (MET) are the most effective in reducing cannabis use, dependence and related problems\(^20-22\). Social support psychotherapy showed equivalence with CBT in one study\(^23\). Although brief interventions (usually in the form of MET) appear effective, recent studies suggest that extended, combined therapies are associated with slightly better outcomes\(^21,22\). In addition, recent research suggests that adding voucher-based incentives to MET and CBT improves treatment compliance and long-term outcome in both voluntary\(^24-26\) and coerced adult clients\(^27-29\), but that voucher-based incentives alone show improvements in compliance and outcome that diminish over time\(^25\).

adolescent and psychiatric populations

Several RCTs suggest that brief interventions—which may involve the provision of information (including to parents), MET, and cognitive behavioural skills training—are effective in reducing cannabis use and dependence in adolescents\(^30,31\). It also appears that extended therapies, which often incorporate significant family involvement (such as multidimensional family therapy), are effective in reducing cannabis use and dependence in adolescents, but no more so than are brief interventions\(^32\). Contingency management also shows promise in enhancing treatment engagement in adolescents\(^33\).
There is one RCT examining effective treatments for comorbid cannabis use and psychotic disorders, which compared ‘treatment as usual’ to ten sessions of motivational interviewing and cognitive behavioural therapy. Clinicians’ recommendations for the management of substance use in the context of severe and persistent mental illness rests with integrated shared care or dual diagnosis services, in which the critical components are staffed interventions, assertive outreach, motivational interventions, counselling, social support interventions, a comprehensive and long-term perspective, and cultural sensitivity and competence.

**Conclusion**

Although the strongest evidence in the management of cannabis dependence exists for MET and CBT in adults and brief interventions in adolescents, further RCTs are required to clarify the effectiveness of other treatments, particularly pharmacological interventions and those designed for psychiatrically comorbid cannabis users.

**References**