Clinical Practice
Discussion
Mental health

Keywords Cognitive behavioural therapy/PTSD/Substance use

This article has been double-blind peer reviewed

In this article...

- How substance use and post-traumatic stress disorder are linked
- How psychological interventions can help reduce symptoms such as anxiety
- Why there is a role for nurses to deliver cognitive behavioural therapy

Cognitive behavioural therapy for people with PTSD and substance use

Key points

People attending substance-use services often have mental health problems, which can hamper their recovery; of these, post-traumatic stress disorder is the most common

Cognitive behavioural therapy can help people who attend substance-use services and have conditions such as post-traumatic stress disorder

With adequate supervision and training, nurses can safely deliver cognitive behavioural therapy

Evidence-based psychological interventions can improve outcomes for people accessing substance-use services

Author John Sims is an accredited cognitive behavioural psychotherapist and honorary lecturer in mental health and psychotherapy, Bangor University.

Abstract People accessing substance-use services commonly have comorbidities associated with anxiety-based disorders. Many have a history of trauma and the most common mental health disorder in this cohort is post-traumatic stress disorder. Without treating the underlying trauma and its associated feelings, improved functionality is difficult to establish and sustain. The National Institute for Health and Care Excellence recommends cognitive behavioural therapy to reduce symptoms of post-traumatic stress disorder. This article illustrates its use in a patient diagnosed with post-traumatic stress disorder attending substance-use services. The case study can provide useful insights for nurses and other clinicians who, with the right training and supervision, could implement cognitive behavioural therapy in their role.

Citation Sims J (2022) Cognitive behavioural therapy for people with PTSD and substance use. *Nursing Times* [online]; 118: 6.

Many people attending substance-use services have comorbidities associated with anxiety-based disorders (Ifeachor et al, 2020; Wedman-St Louis, 2019; Hussein Rassool, 2017; Mulvihill et al, 2017), as defined in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*) (American Psychiatric Association, 2013). The most common of these, by far, also found in North Wales, is post-traumatic stress disorder (PTSD) (Sims, 2019a).

Common mental health disorders (CMHDs) have been found to be present worldwide in populations that engage in substance use (Selick and Wiktorowicz, 2016; Engelhard et al, 2007; Ford, et al, 2007; Kirby and Keon, 2006; Hamblen et al, 2004; Burns and Teesson, 2002). After PTSD, other CMHDs observed in my routine clinical practice with people who engage in substance use has included obsessive compulsive disorder, body dysmorphic disorder, panic disorder, blood injection/injury disorder, depression and anxiety. There could be an enhanced role for nurses working in substance use, whereby they are trained to provide CBT under the clinical supervision of an appropriately qualified colleague, such as an accredited CBT therapist. CBT could then be integrated into their continued professional development portfolio.

In this article, I present a case study to illustrate the use of psychological interventions to reduce the stress, frequency and severity of anxiety-based symptoms of PTSD in a person engaging in substance use. I have chosen PTSD because it is the most frequently seen CMHD in people with substance use disorders (Waddell and Karatzias, 2019; Howard et al, 2017). The case study could provide some useful insights for nurses caring for these people.

Substance use

People attending substance-use services are often among the most vulnerable groups and live on the fringes of society

because of the social stigma of substance use (Wogen and Restrepo, 2020). The use of illicit drugs is often associated with other illegal activity, such as drug dealing, prostitution and acquisitive criminal behaviour, which can make service users suspicious of authorities. Criminalising behaviour can create barriers to building therapeutic relationships, so this population may find it difficult to engage clinically or as part of a research population (Sims, 2019b); negative past experiences of authority figures may also play a part in this reluctance to engage.

People attending substance-use services present health and social care professionals with various challenges and, by definition, have complex needs. This complexity can manifest itself in physical ill health associated with the use of drugs/alcohol, such as gastrointestinal issues, together with neurological problems and the transmission of blood-borne viruses (Nanayakkara and Mcnamara, 2021). Some of this complexity is exacerbated by high levels of impulsivity, as a result of substance use, which negatively affects the decision-making process, often causing people to come into conflict with the criminal justice system (Stark, 2020). These complex presentations can also encapsulate a range of other issues, such as domestic violence and abuse (Gadd et al, 2019), child-protection concerns (Houmøller et al, 2011), unplanned pregnancy (Edwards, 2020; Steele et al 2020) and serious mental ill health (Skinner et al, 2021; Sims 2019a).

All professionals working in substance use can contribute to an individual's recovery but, for interventions to be effective, there needs to be a reduction in drug/alcohol use to limit the lifestyle chaos that is often associated with the problem. Healthcare interventions are often needed to stabilise people accessing substance-use services, so they can then access other forms of help. This can include:

- General support and coordination of care;
- Harm reduction and public-health interventions;
- Psychosocial interventions (based on peer-group support networks);
- Formal evidence-based psychotherapy, primarily cognitive behavioural therapy (CBT).

Schifano et al (2018) suggested that substance use is a way for a person to avoid reminders of trauma and reduce the accompanying anxiety. It has been estimated that 30-50% of those identified as having serious mental illness worldwide also have a substance-use issue (Nathan and Lewis, 2021; Torrens et al, 2015). These people have high levels of impulsivity accompanying their substance use or their anxiety-based disorder, which places them at high risk of self-neglect, self-harm and high-risk activities, as well as suicide (Poorolajal et al, 2016). Notably, many people in the armed forces in the UK have been identified as experiencing PTSD (Head et al, 2016).

"Most people presenting with substance use have both cognitive and behavioural-maintaining factors"

Clinical comorbidity challenges

Often people with a substance-use issue will first need to see a medical officer. This is to stabilise any physical issues, such as chemical dependence or other physical health problems, and to identify any mental illness that may require appropriate medication and treatment.

Most people presenting with substance use have both cognitive and behavioural-maintaining factors, as part of a wider picture that has its origins in an anxiety state (Sims, 2019a). Any underlying anxiety-based issue that remains undetected means positive behavioural change is unlikely. For example, if the person has PTSD, unless the underlying problem of trauma and its associated feelings are addressed, improved functionality will be difficult to establish and sustain. Likewise, substance use can play a large role in maintaining anxiety associated with trauma.

The first challenge is to achieve an evidence-based unified assessment by the most appropriate agency, depending on the clinical needs of the individual. Sometimes people with comorbidity can be passed between mental health and substance-use services and physical health services. In my clinical experience, as soon as a person mentions any substance-use issues, the stock response from mainstream mental health services is: "once you have 'sorted' out your substance use, re-refer yourself back to us". This can have a negative effect by making individuals feel a sense of rejection, which can leave them feeling more anxious.

Cognitive behavioural therapy

The clinical credibility and effectiveness of CBT as a psychological intervention is well established; in addition, it is cost effective compared with other evidence-based psychological interventions, such as generic

Box 1. **Case study: background**

Carys* is a 26-year-old, single female who lives with her mother. Both her parents had a history of alcohol use and her father had recently died due to complications of long-term alcohol use. Carys was chemically dependent on heroin when first accessing the substance-use service and had been on a methadone prescription for some time. She had several physical sequelae associated with her long-term opiate/opioid use. At an assessment regarding her suitability for psychotherapy, she presented well and was able to give a good account of herself. She gave a history of multiple trauma as a consequence of systematic childhood sexual abuse, which she said had been perpetrated by her father. After her father's death, Carys had begun to feel empowered to make sense of her abuse and the associated trauma-based anxiety symptoms.

These symptoms increased anxiety when she was in male company, especially in that of men older than her. She also felt in great danger if anyone approached her unannounced, particularly from behind. Acute anxiety often led to panic attacks, which made her feel like she was going to die. Her historical and recent history of substance use (mostly heroin) meant she also demonstrated high levels of impulsivity and more obvious forms of self-harming, such as cutting her wrists or staying in abusive relationships. She had recently been admitted to hospital after an overdose of anti-depressant medication.

Carys was unable to go out; she felt constantly at risk and any social exposure set off flashbacks. These were particularly triggered by contact with older men, or when she visited the local park, where much of the abuse had taken place. During bad attacks, she would often feel not part of her body or that her environment was unreal. She had difficulty imagining her life in the future and described her quality of life as very poor.

*Patient's name has been changed

counselling (Mavranezouli et al, 2020; Shahzadi and Abbas, 2020). Delivering CBT virtually in response to the Covid-19 pandemic has become the new norm across a range of clinical areas, such as older persons' medicine (Vincenzo et al, 2021), pain management (Fritz et al, 2021) and eating disorders (Yaffa et al, 2021).

Case study

Carys (not her real name) is a person with a history of trauma and self-harm, who had PTSD with co-occurring substance use. Her history is given in Box 1. Carys was assessed for her suitability for psychological intervention and offered trauma-based CBT.

Theoretical model

The cognitive model of PTSD described by Ehlers and Clark (2000) guides the evidence-based CBT model of intervention. The National Institute for Health and Care Excellence (NICE) (2018) recommends CBT to reduce symptoms of PTSD.

In line with these guidelines, a person is offered trauma-focused CBT, based on the work of Foa et al (2019). This involves supporting them to re-experience the trauma and the images it generates. By no longer avoiding this reliving of the original traumatic experience, they can establish new learning in their appraisal of the perceived threat that, over time and with repeated exposure, reduces the frequency and severity of the anxiety response.

The intervention process involves getting to know the person and establishing a professional relationship based on mutual respect and dignity; this creates a therapeutic alliance.

Assessment

Adherence to Long and Hollin's (1997) scientist–practitioner model established high scores across two validated rating scales – namely, Weiss' Impact of Event Scale (Weiss, 2007) and Foa et al's (2000) PTSD Self-Report Scale – confirming Carys' complex presentation. Part of this complexity involved her loss of psychological, social and occupational functionality. People with a trauma-based history are often clinically depressed (Kiefer and Frischknecht, 2020; McIntosh and Ritson, 2007).

Carys met the diagnostic criteria for PTSD with mild-to-moderate dissociative features. She imagined she was the only person in the world who experienced these symptoms, and felt they would result in her death.

Resource building

Psychological clinical interventions can leave people feeling more exposed and vulnerable. Building on a person's support networks to increase their resources can help them sustain cognitive and behavioural changes to maintain their sobriety. This was important for Carys to help her through therapy, and included encouraging her creativity and interests, such as walking, painting and other pursuits that could be used as non-pathological self-soothing.

The initial interventions involved:

- Educating Carys about what the problem seemed to be, and giving it a name;
- Showing her how the ways in which she thought and behaved contributed to maintaining the presenting symptoms.

QUICK FACT
30-50%
People with serious mental illness who engage in substance use worldwide

Carys' increased emotional arousal, which she appraised as life threatening, had both internal and external triggers. The internal triggers were linked to her core beliefs, which were part of how she appraised herself – often in negative terms as a 'bad' person. This self-appraisal was based on her negative self-talk, focusing on all the bad things in her life. Escape and avoidance of triggers were a feature of her behavioural-maintaining factors.

People often feel empowered by the psychoeducation process. The use of drawings, diagrams and metaphors is extremely helpful to facilitate this new learning, and the process can also help them to articulate how anxious they are, so they can see their symptoms reduce as they go through the treatment. The use of subjective units of distress, using a percentage scale or scale of 1 to 10, for people to articulate how distressed they are, is a simple way to do this.

This evidence-based process was used with Carys, resulting in improved functionality, which was reflected in her self-reports of feeling better and reduced scores across all measurements. This improved her quality of life by reducing the severity and frequency of her anxiety-based symptoms.

Behavioural activation

Often people lose all structure to their day, and show symptoms of low mood with associated anxiety, which can lead to panic attacks. Once established over time, this is maintained behaviourally through isolation and cognitively through negative automatic thoughts, along with attentional cognitive bias to these thoughts. This contributes to the person's low self-esteem and lack of confidence, and their difficulty in being positive about the future, which increases their anxiety.

Interventions such as behavioural activation are proven ways of lifting a person's mood (Martínez-Vispo et al, 2018) and can be delivered before trauma-focused work to help them get the most out of the intervention and achieve the best clinical outcome. It involves getting people to plan their day the night before, by setting realistic and achievable daily goals and targets. Ideally, these need to involve some physical activity and a degree of social exposure, designed to give them a sense of satisfaction and achievement. By doing this, they:

- Begin to feel more in control;
- Rediscover a sense of purpose to their lives;
- Take their focus away from themselves;
- Restore structure to their day.

Discussing tasks and results, and negotiating homework, is a collaborative process between the clinician and the individual. A review of collaboratively negotiated homework tasks is carried out at the beginning of each treatment session to establish whether the person is carrying out the tasks as agreed. This homework review is also used to identify new learning in the person, which contributes to improved functionality.

Exposure work

In line with NICE's (2018) treatment guidelines for PTSD, Carys was offered CBT for symptom relief. This took place over 18 therapy sessions, and used and adhered to Foa et al's (2019) prolonged trauma-focused exposure therapy treatment protocol. The use of audiotape describing the trauma, which clients listen to daily in between appointments, forms a useful part of the exposure-to-habituation process and is reviewed each week. It is important to emphasise to clients that it is not possible to offer a cure for their PTSD; rather, the treatment model is about gaining a reduction in the frequency and severity of symptoms. Individuals often accept this and see it as a way of improving their quality of life.

By undertaking this evidence-based intervention, Carys experienced an overall

improvement in her quality of life. This was evidenced by her ability to recognise positive change and self-report a reduction in the frequency and severity of her anxiety-based symptoms. It was also demonstrated by improved scores across both the validated rating scales used to measure her symptoms and their severity.

Clients feeling more positive about the future is also an important self-reported manifestation of improved functionality and an increased ability to get on with their lives.

"Nurses can be helped to develop enhanced psychological skills through the use of clinical supervision"

Conclusion and recommendations

Identifying underlying anxiety-based disorders and the equitable provision of psychological interventions, such as CBT, is important for the substance-use service users. It is important to treat their underlying anxiety-based problems, which are often linked to trauma-based life histories, as these can reduce their ability to sustain behavioural change. Treatment for substance-use problems should not just be about reducing harm and facilitating cognitive and behavioural change, but should also be about their sustainability because, unless the underlying anxiety-based issues are addressed, the substance use is likely to re-emerge.

Good clinical outcomes when treating underlying anxiety-based problems are best achieved once the individual has been stabilised. This maintains the reduction in symptoms, together with an improved quality of life, allowing them to achieve their fullest potential.

Professionals, clients and their families, as well as the community at large, all have a contribution to make in supporting positive change in this highly vulnerable group. There is no panacea, no one-size-fits-all approach, no wonder cure; rather, it is about a collaborative approach to a disabling and damaging problem.

The importance of psychological interventions needs more emphasis. Adequate provision of trained clinical staff to deliver evidence-based psychological interventions, such as CBT, would benefit care and help improve clinical outcomes by delivering more sustainable cognitive and behavioural change for these individuals.

There is a role here for nurses to safely deliver CBT, if they are given the appropriate training and ongoing clinical supervision. This would improve service provision to meet the psychological needs of individuals in these groups. **NT**

References

American Psychiatric Association (2013) *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*. APA.

Burns L, Teesson M (2002) Alcohol use disorders comorbid with anxiety, depression and drug use disorders. Findings from the Australian National Survey of Mental Health and Well Being. *Drug and Alcohol Dependence;* 68: 3, 299-307.

Edwards A (2020) *Antenatal Midwifery Skills: Survival Guide.* Routledge.

Ehlers A, Clark DM (2000) A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy;* 38: 4, 319-345.

Engelhard IM et al (2007) Low specificity of symptoms on the post-traumatic stress disorder (PTSD) symptom scale: a comparison of individuals with PTSD, individuals with other anxiety disorders and individuals without psychopathology. *British Journal of Clinical Psychology;* 46: 4, 449-456.

Foa EB et al (2019) *Prolonged Exposure Therapy for PTSD: Emotional Processing of Traumatic Experiences – Therapist Guide.* Oxford University Press.

Foa E et al (2000) Comparison of the PTSD Symptom Scale-Interview Version and the Clinician-Administered PTSD scale. *Journal of Traumatic Stress*; 13: 2, 181-191.

Ford JD et al (2007) Psychological trauma and PTSD symptoms as predictors of substance dependence treatment outcomes. *Behaviour Research and Therapy*; 45: 10, 2417-2431.

Fritz JM et al (2021) Pivoting to virtual delivery for managing chronic pain with nonpharmacological treatments: implications for pragmatic research. *Pain;* 162: 6, 1591-1596.

Gadd D et al (2019) The dynamics of domestic abuse and drug and alcohol dependency. *The British Journal of Criminology;* 59: 5, 1035-1053.

Hamblen JL et al (2004) Cognitive-behavioural treatment for PTSD in people with severe mental illness: three case studies. *American Journal of Psychiatric Rehabilitation;* 7: 2, 147-170.

Head M et al (2016) Post-traumatic stress disorder and alcohol misuse: comorbidity in UK military personnel. *Social Psychiatry and Psychiatric Epidemiology;* 51: 1171–1180.

Houmøller K et al (2011) *Juggling Harms: Coping with Parental Substance Misuse.* London School of Hygiene and Tropical Medicine.

Howard R et al (2017) Posttraumatic stress disorder (PTSD) symptoms mediate the relationship between substance misuse and violent offending among female prisoners. *Social Psychiatry and Psychiatric Epidemiology;* 52: 1, 21-25.

Hussein Rassool G (2017) *Alcohol and Drug Misuse: A Guide for Health and Social Care Professionals.* Routledge.

Ifeachor AP et al (2020) HCV eradication in veterans with underlying mental health disorders and substance use. *Science and Practice Research;* 60: 6, 1037-1043.

Kiefer F, Frischknecht U (2020) Addressing the associated conditions of drug and alcohol abuse. In: Felthous AR, Saß H (eds) *The Wiley International Handbook on Psychopathic Disorders and the Law.* Wiley-Blackwell.

Kirby MJL, Keon WJ et al (2006) *Out of the Shadows at Last: Transforming Mental Health, Mental Illness and Addiction Services in Canada.* The Standing Senate Committee on Social Affairs, Science and Technology.

Long CG, Hollin CR (1997) The scientist–practitioner model in clinical psychology: a critique. *Clinical Psychology and Psychotherapy;* 4: 2, 75-83.

Martínez-Vispo C et al (2018) Effects of behavioural activation on substance use and depression: a systematic review. *Substance Abuse Treatment, Prevention, and Policy;* 13: 1, 36.

Mavranezouli I et al (2020) Cost-effectiveness of psychological treatments for post-traumatic stress disorder in adults. *PLoS One;* 15: 4, e0232245.

McIntosh C, Ritson B (2007) Treating depression complicated by substance misuse. In: Day E (ed) *Clinical Topics in Addiction.* Royal College of Psychiatrists.

Mulvihill DL et al (2017) Literature review: connections between trauma and substance abuse. *Mental Health and Addiction Research;* 2: 4, 1-15.

Nanayakkara B, McNamara S (2021) Respiratory problems and substance misuse. In: el-Guebaly N et al (eds) *Textbook of Addiction Treatment.* Springer.

Nathan R, Lewis E (2021) Assessment of coexisting psychosis and substance misuse: complexities, challenges and causality. *British Journal of Psychiatric Advances*; 27: 1, 38-48.

National Institute for Health and Care Excellence (2018) *Post-traumatic Stress Disorder.* NICE.

Poorolajal J et al (2016) Substance use disorder and risk of suicidal ideation, suicide attempt and suicide death: a meta-analysis. *Journal of Public Health;* 38: 3, e282-291.

Schifano F et al (2018) Post-traumatic stress and substance misuse; neurobiological and clinical pharmacological correlates. *Research and Advances in Psychiatry;* 5: 2, 52-60.

Selick A, Wiktorowicz M (2016) Co-occurring mental health and addiction disorders: the elusive path to integrated care. *International Journal of Noncommunicable Diseases;* 1: 3, 97-104.

Shahzadi M, Abbas Q (2020) Individualised cognitive behaviour therapy in patients of substance use disorders: three case studies. *Journal of the Pakistan Medical Association:* 70: 9, 1657-1660.

Sims J (2019a) Mental health in substance misuse patients in Wales. *Journal of Public Mental Health;* 18: 4, 269-278.

Sims J (2019b) Ethical research with hard-to-reach groups: the example of substance misuse. In: Iphofen R (ed) *Handbook of Research Ethics and Scientific Integrity.* Springer.

Skinner GCM et al (2021) The 'toxic trio' (domestic violence, substance misuse and mental ill-health): how good is the evidence base? *Children and Youth Services Review;* 120: 105678.

Stark MM (2020) Substance misuse. In: *Clinical Forensic Medicine: A Physician's Guide.* Springer.

Steele S et al (2020) Substance misuse in pregnancy. *Obstetrics, Gynaecology and Reproductive Medicine;* 30: 11, 347-355.

Torrens M et al (2015) *Comorbidity of Substance Use and Mental Disorders in Europe.* European Monitoring Centre for Drugs and Drug Addiction.

Vincenzo JL et al (2021) Capitalizing on virtual delivery of community programs to support health and well-being of older adults. *Physical Therapy and Rehabilitation Journal;* 101: 4, pzab001.

Waddell N, Karatzias T (2019) The relationship between interpersonal trauma and substance misuse in pregnancy. *British Journal of Midwifery;* 27: 9, 578-588.

Wedman-St Louis B (2019) Why terpenes matter: the entourage effect. In: *Cannabis as Medicine.* CRC Press.

Weiss DS (2007) The impact of event scale – revised. In: Wilson JP, Keane TM (eds) *Assessing Psychological Trauma and PTSD: A Practitioner's Handbook*. Guilford Press.

Wogen J, Restrepo MT (2020) Human rights, stigma, and substance use. *Health Human Rights*; 22: 1, 51-60.

Yaffa S et al (2021) Treatment of eating disorders in adolescents during the COVID-19 pandemic: a case series. *Journal of Eating Disorders;* 9: 17.