



Underground MDMA-, LSD- and 2-CB-assisted individual and group psychotherapy in Zurich: Outcomes, implications and commentary

Ben Sessa¹ and Friederike Meckel Fischer²

Abstract

Underground psychedelic-assisted psychotherapy has persisted in Europe despite the banning of the substances LSD and MDMA in the 1960s and 1980s, respectively. This article describes the work of a Zurich-based psychotherapist providing individual and group psycholytic psychotherapy, whose practice persisted for several years before she was arrested in 2009. The article provides commentary on the psychopharmacological, moral, ethical and legal issues of this case and discusses these issues in the context of the growing medical research of psychedelic substances as mainstream treatments for psychiatry.

Keywords

2C-B, LSD, MDMA, psychedelics, psychotherapy

Introduction

Psychedelic (hallucinogenic) substances have been used for thousands of years by archaic and non-Western cultures for psycho-spiritual healing. Following the discovery of LSD in 1943, these drugs were researched extensively by psychiatry (Hofmann, 1980). Most psychedelic research ended by the 1970s amidst widespread recreational drug use. Work with psychedelic agents was largely absent for the next 40 years until a recent resurgence of interest in these compounds as adjuncts for psychotherapy (Sessa, 2005).

Despite the hiatus of clinical research since the 1960s, throughout the world there have been some small pockets of continued underground use of psychedelics for psychotherapy. This article, which arose from several interviews between UK psychiatrist Ben Sessa and German psychiatrist Friederike Fischer, describes one such project delivering individual and group psycholytic therapy that ran for several years in Switzerland until 2009. The project came to an end when Dr Fischer and her husband were arrested, put on trial and sentenced.

Friederike's background history and training

Friederike trained as a medical doctor in Germany specialising in industrial medicine and psychotherapy.

She further trained in the USA as a Holotropic Breathwork[®] facilitator with Dr Stanislav Grof, who had worked extensively with LSD-assisted psychotherapy during the 1960s and 1970s (Grof, 1980/2001).

In Switzerland between 1988 and 1993, there was a brief period of relaxation in the Swiss legislation concerning clinical use of psychedelic substances, and a psycholytic therapy training group was set up to instruct therapists in the use of mainly MDMA and LSD. Psycholytic therapy involves drug-assisted psychotherapy with repeated low to moderate doses – as opposed to traditional 'psychedelic' psychotherapy, which involves a single or infrequent use of a very high dose of the drug. After Friederike had her first personal experience with MDMA, she 'knew immediately that it could be used therapeutically'. She and her husband joined the training group whilst also working in her own private psychotherapeutic practice providing non-drug psychotherapy, Holotropic Breathwork[®] group therapy and Family Constellation work.

¹Cardiff University School of Medicine, UK

²Retired psychiatrist and psychotherapist

Corresponding author:

Ben Sessa, Cochrane Medical Education Centre, Cardiff University School of Medicine, Heath Park, Cardiff, CF14 4YU, UK.

Email: bensessa@gmail.com

Beginning individual therapy with psychedelic drugs

When Friederike began offering individual psycholytic psychotherapy sessions, some clients were recommended by word-of-mouth, but most had already had extensive non-drug psychotherapy with her. Only a very small percentage of her clients (4%) went on to drug-assisted therapy.

Those chosen to progress to psycholytic work were those clients deemed to be ‘stuck’ or failing to progress in traditional non-drug psychotherapy.

Initial individual assessment with MDMA therapy sessions

The client would start with psycho-education, the nature of the psycholytic experience and what to expect under the influence of the substance. Clients were then offered an individual drug-assisted session with MDMA. Only when the client was familiar and comfortable with the MDMA experience, sometimes after several individual sessions, would they be invited to join the larger therapeutic psycholytic group.

Friederike: ‘It takes time to get to know and to be with a substance...to recognise the peaks and troughs and how to manage one’s responses and challenges’.

The initial individual sessions would also be used to stress the importance of the rules and boundaries employed by the group. Once a client was ready, they were offered the opportunity to join the therapeutic group, where other adjunctive drugs could be considered alongside MDMA, such as LSD or 2-CB.

Characteristics of clients in the psycholytic group

Ninety-seven of Friederike’s clients were given psycholytic therapy, and 60 participated in the psycholytic groups. The gender mix was 50/50, and the age range of clients was 18 to 70 years. There was a wide range of different social statuses amongst the participants but most were well educated and intellectually high achieving. The average length of stay in the group was 25 sessions dispersed over several years.

Friederike led all the group sessions herself and her husband Konrad, whilst not a therapist, also attended most sessions. His role was one of a passive observer, providing an important containing element in the context of the complex systemic dynamics that often occurred.

Structure of the group sessions

The psycholytic group met over a weekend once a month (10 times a year) at the home of Friederike and Konrad

in Zurich. The substance-assisted therapy session took place all day Saturday, but the group’s participants stayed from Friday to Sunday to take part in other non-drug aspects of the therapeutic milieu.

On Friday, participants arrived at 7pm and had dinner together with their hosts, sharing how they had been since last month’s session and discussing what they would like to achieve on the Saturday session. Between 8pm and 10.30pm they all met for a (non-drug) group sharing in which they related how they had been since last month’s session and discussed what they would like to achieve on the Saturday session and how they would phrase their intention-question. Each client produced a written protocol which summarised the experience in the last session and which was the ‘entry ticket’ for the new one.

On Saturday morning, Friederike prepared the medicines according to participants’ individual needs. Friederike set the dosages for beginners. Very experienced participants would decide jointly with Friederike what dosage to take. After a light breakfast everyone started the session with a *Promise Ritual*, in which they confirmed the following:

I promise to keep silence about the present people, about the location and the holy medicine. I promise to harm neither others nor myself during or after the session. I promise to return from the session in a more healed and wiser way and I carry the responsibility of what I am doing here myself.

Then all participants held hands, wished themselves a good journey, took the first medicine together (usually MDMA) and immediately lay down.

Friederike and Konrad always took the same substance as the participants. In the early stages of the psycholytic therapy, she experimented with not taking the drug herself but found that her guidance and therapeutic interventions were more effective (as described by her clients) when she took the substance together with them.

For the next 90 minutes, everyone remained still and silent, with eyes closed lying on mattresses or sitting. Then Friederike played the first of a number of different pieces of music ranging from classical to New Age, in varying tempos to ‘awaken’ the participants to the effects of the substance, whereupon they then formed a circle and focused their attention on beginning the psychotherapeutic work.

For the next three hours, Friederike led the group members in their individual and group work (which is described in detail later). Then breaking at 1pm, participants used the bathroom and ate before Friederike handed out to each person the second substance – usually LSD, but sometimes 2-CB.

There followed another period of silence followed by music to bring the clients to the point where the MDMA and the LSD or 2-CB met. At the second peak, they would begin the intensive psychotherapeutic work again, which could last for another five to six hours.

At around 9 pm, the session ended and the group enjoyed a meal together, followed by a walk. No one was allowed to leave the group alone. By midnight, all the guests had settled to bed.

On Sunday morning, they meet for a non-drug session to discuss and integrate the previous day's work. The guests then settled their invoices and went home. The cost per guest was between 300 and 400 Swiss Francs (£190–£250) per weekend, which included the cost of the substances. Some clients who were struggling to pay would stay behind and help with chores by way of payment.

In the following two weeks, all the participants sent Friederike a written report of their experience. Any of the participants were free to contact Friederike at any time and arrange an individual 1:1 (non-drug) session before the next psycholytic session if desired.

The choice and dosages of substances used for the sessions

- MDMA: 80–130 mg
- LSD: 50–200 µg
- 2-CB: 15–30 mg

Combining substances

Most psycholytic sessions began with MDMA, then LSD or 2-CB were added mid-way. Sometimes sessions began with 2-CB or with LSD or on rare occasions other substances such as ayahuasca or psilocybin were used. Crucially, all the participants (including Friederike and Konrad) at any given session always all took the same substance at the same time; only the doses changed between individuals.

The use of MDMA as a psychotherapeutic agent

MDMA exerts its effects at 5-HT_{2A} and 5-HT_{2B} receptors, creating feelings of reduced anxiety and depression and a sense of euphoria and well-being (Brunner and Hen, 1997; Graeff et al., 1996). Its effects at 5-HT_{2A} receptors (where 'classical' psychedelics such as LSD predominantly act) facilitate original and innovative thinking (Nash et al., 1994). MDMA also exerts effects at alpha-2 receptors, producing calmness and relaxation. MDMA's actions at dopamine and

noradrenaline receptors causes increased stimulation and motivation (Cozzi et al., 1999; Fitzgerald and Reid, 1990; Lavelle et al., 1999). And effects at the hypothalamus cause oxytocin release, increasing feelings of empathy and bonding (Thompson et al., 2007). Taken together, all these neurobiological aspects of MDMA provide the optimal psychological conditions to make it a useful drug for psychotherapy (Greer and Tolbert, 1986; Sessa, 2011).

Psychological dynamics within group psycholytic work

As clients progress through the course of monthly sessions, they gain experience with the substance-induced mental spaces in order to explore and challenge their individual psychological issues. Friederike describes three successive stages of the psycholytic therapy, akin to a client's personal development: 'Primary School', 'Middle School' and 'High School'.

The 'Primary School' stage

Over an average of 10 sessions, participants develop the basic strategies required to work with MDMA and other substances. A fundamental skill is 'The Self Reflecting I'; learning to be self-reflective and constantly aware of one's personal identity in order to 'let go' in a non-judgmental manner. Such mindfulness is essential to cope with the psychological material released especially with LSD and 2-CB. Becoming 'The Empathic Observer' provides a neutral reference point to explore thoughts without resistance.

Friederike begins the therapeutic phase of the drug session by asking the clients 'Where are you?' – which encourages clients to visualise their problems in a watchful manner without allowing themselves to attach to a particular thought.

Biographical scenes of childhood emerge; with associated reflections upon parents and memories of psychological trauma such as sexual, physical or emotional abuse. These experiences were worked through with trauma-specific work. Friederike guided the participants through the re-living of the traumatising moment by staying connected to the client's adult part, by giving safety, by encouraging the child-self to go through and by helping the client in the end to distinguish between the present and the past. Often these experiences required live-body work, since trauma is stored in the body too. Thus the link between the event and the trauma was cut. Sometimes, Friederike will initiate a symbolic role-play scenario "modified constellation work", with Konrad as the role-played mother or the father. The clients are encouraged to engage in a verbal dialogue with one another, in character, to play out the psychological dynamics and to

explore the systemic issues – all the time using the Empathic Observer stance as a non-judgmental reference point.

Progression through the ‘Primary School’ stage leads to the process of ‘Correcting New Experience’, in which they address specific personal issues and previously unexplored relationship dynamics. Very often they experienced the hitherto buried deep love between their parents and themselves. They may experience dramatic personal revelations – within and outside the psycholytic sessions – and may wish to make major life changes, such as marrying (or divorcing) their partner, taking new responsibilities or leaving their job. Friederike would always reflect with them the importance of ‘being with’ the issues and gaining more experience with the substances before making such drastic life-changing decisions.

The ‘Middle School’ stage

This might last for another 10 sessions. By now, the clients can recognise the substances’ mental spaces more easily and are developing a preference for different substances and dosages. They learn to guide their inner processes themselves, with less intervention from Friederike. They can go deeper into the experience and pose mental questions to themselves about biographical issues but must not allow themselves to believe they have all the answers.

Looking more closely at systemic and dynamics issues, the clients are able to make connections with other aspects of their lives and lifestyles, for example their relationships at home, employment, with their partner and their children. There is a greater emergence of spiritual experiences and the clients begin to understand the issue of projection – that what they see on the outside is a reflection of what they feel on the inside.

The ‘High School’ stage

This could last for up to 20 sessions. By now, the clients have fully integrated the concepts of being still and not attaching to emotional experiences. They fully know the substance and can conduct psycholytic sessions on their own. They might use lower doses and need less or no music as they have learned how to remain still and rise higher with less external input.

Clients begin to fully integrate their learning into their everyday normal lives. Acquired mindfulness provides peace and tranquillity to cope with their life problems in a new way. They have changed. Their new skills are transferable to everyday life.

Spiritual insights provide an awareness of being part of a greater whole, something bigger than oneself. Clients often state that underlying all experience is the concept of *love*; binding together all other aspects of life.

This is very powerful for clients who have up till now never enjoyed any significant experience of love. Feeling love is a fundamental characteristic of psychedelic substances and particularly MDMA. The substance gives the clients an opportunity to see themselves as loving and, crucially, *lovable* individuals, which offers immense healing potential for clients with traumatic histories.

Clinical outcomes of the psycholytic group work

In common with many psychotherapists, Friederike did not routinely collect quantitative psychological measures of her clients’ progress. But of the 97 clients who underwent psycholytic psychotherapy, the qualitative outcomes were overwhelmingly positive. There were no serious adverse reactions to the substances, no psychoses, no hospitalisations and no suicides of any clients who were actively undergoing psycholytic therapy. Almost all of the clients describe improvements in their relationships and well-being at home and work. Some stayed with their partners, some found the strength to leave. Some stayed in their jobs and some developed new interests, lifestyles and employment – generally away from a more consumerist lifestyle. For example, one man left a highly paid corporate job and trained as a counsellor and another became a social worker.

How it all came to an end

In 2009, Friederike and Konrad were arrested when an ex-client informed the police. The ex-client, together with her husband had initially been successfully engaged in non-drug and psycholytic therapy. The couple had initially praised Friederike for their positive experiences using MDMA and LSD. But during the course of their therapy, the couple later separated as a result of personal insights gained by the husband. On moving out of the marital home, then husband briefly lodged with Friederike and Konrad for want of a place to stay. Subsequently, the wife blamed Friederike for her husband’s decision to end the marriage and decided to inform the police about the underground therapy. She told the police that Friederike and Konrad had used MDMA and LSD to ‘brainwash’ her husband and turned him against her. She denied any positive aspects of the sessions she had had. The police then put Friederike and Konrad’s house under surveillance and tapped their telephone and emails, looking for evidence of drug dealing.

Arrested and put on trial

In October 2009, the police raided the home and found four tablets and two capsules of MDMA, four tabs of

blotter LSD and seized written documentation and the couple's computers. Friederike and Konrad were arrested and put into custody in separate prisons for almost two weeks, during which time they were interrogated. The police found no evidence to suggest the couple were dealing drugs and they were allowed home.

The trial took place in July 2010. The prosecution case charged that Friederike and Konrad were dealing drugs, making a large profit and were endangering society at large because LSD was an intrinsically dangerous drug. (Of note, the prosecution case never stated that their use of MDMA was also endangering society. Interestingly, there is no concept of MDMA-associated neurotoxicity under Swiss law.)

In Friederike and Konrad's defence, a number of influential psycholytic therapists and neuroscientists (Ede Frecska, Peter Gasser, Stanislav Grof, David Nichols, Rick Strassman and Michael Winkelman) testified that LSD is *not* a dangerous drug and that it has no significant physical or psychological adverse effects when given in a controlled clinical setting. On the basis of this evidence, the charge that the couple were endangering society with their use of LSD was completely rejected.

Friederike submitted further literature from Albert Hofmann, Torsten Passie and others as evidence that they had paid careful attention to Set and Setting throughout their practice of psycholytic therapy and that their project was non-profitable and not about dealing or recreational/hedonistic drug use. Rather the substances were being used with great care and attention in the context of a therapeutic setting.

Friederike told the judge directly:

For me psychedelics like MDMA and LSD are not drugs. They are psycho-integrative substances that have been used for thousands of years. (It) is not like getting drunk. The clients are in a clear state of elevated consciousness in which they can carry out psychotherapeutic work.

The court hearing lasted just three hours. Friederike describes the waiting for the sentence to be passed as 'the most frightening few hours of my life', as she knew there was a chance she could receive a custodial jail sentence of up to 20 years for the alleged charges. However, the judge understood that they were not dealing and that their clients had willingly used the drugs in the context of a clinical intervention. The sentences were relatively lenient. Konrad was fined 10,000 Swiss Francs (£6500) and received a 2-year probation sentence. Friederike was fined 2000 Swiss Francs (£1300) and given a 16 months suspended sentence with a following probation period of two years.

Other outcomes

The local media branded the couple as 'evil' and false accusations were made that Friederike and Konrad were conducting 'sex orgies' as part of a cult and that they were pushing drugs upon unsuspecting or vulnerable people for vast personal profits. Consequently, the Zurich Health Council threatened to remove Friederike's professional license. She subsequently voluntarily gave up her qualification as a psychotherapist rather than endure going through such a disciplinary procedure.

Commentary

This remarkable story generates many issues worthy of commentary. There are matters around the relative effectiveness and safety of psycholytic therapy and the particular manner in which it was conducted in this instance. There are questions around the legal aspects of these substances, the drug laws as they currently stand and moral and ethical issues around Friederike and Konrad engaging in this project in the first place.

What could they have done differently?

Friederike knows she strayed from the usual boundaries between client and therapist in allowing her ex-client's ex-husband to lodge briefly with her and Konrad. However, she states that in the case of psycholytic psychotherapy, it is sometimes more delicate to find the proper distance between therapist and client. Nevertheless, it is arguable that it is essential to do so.

Another idiosyncrasy of this project is that Friederike could not consult widely with other clinical colleagues for supervision. It was difficult for her to share her thoughts, feelings and needs with anyone outside the project. Any clinician operating in isolation is at risk of failing to see potential pitfalls or new angles for therapy and is also completely 'at the mercy' of one's clients.

Friederike relied entirely upon trust to keep the project under wraps. The 'Promise Statement' made at the beginning of each drug session helped keep the project hidden to some extent. But no matter how skilled and containing any therapist is, it is inevitable that at some point a dynamic may occur in which a client is overwhelmed by issues that arise as a result of the therapy and may wish to complain. When this occurs in traditional psychotherapy, the therapist may seek support from colleagues or from professional bodies such as lawyers or medical insurance companies. In this instance, Friederike had no such supports available, which left both her and her clients vulnerable.

Nevertheless, the plug could have been pulled at any time by any one of the clients in the years before it ended. The fact it lasted as long as it did clearly demonstrates a very high level of understanding of shared goals between therapist and clients – perhaps more so than one would normally see with traditional therapy.

In retrospect, Friederike could have been more judicious in selecting clients going forward for psycholytic therapy, in order to avoid those not prepared to bear the responsibility of their own actions. However, in reality she *was* judicious – recruiting only 4% of her available pool of clients she held in non-drug therapy. So there is no evidence she had a cavalier approach to using substance-assisted therapy.

Moral and ethical issues

Some drugs are legal, widely advertised and socially sanctioned despite being more toxic than many others whose use is restricted (Nutt et al., 2010). This fact and the negative press reports against Friederike and Konrad reflect the general public's critical feelings about illegal drugs. Many people erroneously believed Friederike made great profits from her work, even though the price charged for the entire weekend's therapy is below what some psychotherapists charge for a single two-hour session of traditional psychotherapy.

Friederike knew these substances offered her clients a therapeutic option not available through traditional psychotherapy. The substances could be used safely with appropriate set and setting controls, which she followed fastidiously. She was conservative in her selection of clients and careful to ensure they were adequately followed-up outside the sessions.

Having exercised all these controls, Friederike nevertheless provided this therapy in spite of the illegality. Does this make her a foolish law-breaker? Or a brave clinician prepared to carry considerable personal risk (for which she subsequently paid the price) in order to provide a viable clinical intervention for her clients?

How widespread is underground therapy?

It is estimated there are dozens of other underground psycholytic psychotherapy groups operating throughout Switzerland using MDMA, LSD and other agents. And it is conceivable that the practice is also going on in the UK. Many people today use psychedelic drugs as part of a healing and wholesome community cohesive experience, rather than simply an act of hedonism; much more so than when

they take other drugs such as alcohol and cocaine (www.bluelight.nd).

In 2009, in Berlin, two deaths occurred in the context of an underground psycholytic therapy group session. Clients were accidentally given lethal doses of the drug methyline (<http://www.bild.de/BILD/news/bild-english/world-news/2009/09/21/berlin-therapy-deaths/doctor-admits-i-gave-patients-drug-cocktail.html>). This tragedy highlights the particular risks associated with a lack of quality controls involved with underground therapy.

The future for psychedelic research

After 60 years of widespread recreational LSD use by hundreds of millions of people, there have still been no recorded deaths or any clinically significant morbidity issues with the drug. Although LSD is an immensely powerful substance, it has been repeatedly demonstrated that it can be used perfectly safely in a clinical setting with due care and attention (Gasser, 2014). Similarly with MDMA, after 25 years of heavy recreational ecstasy use throughout the world, the morbidity and mortality rate remains very low and when taken in a controlled clinical setting, there is no substantial evidence for irreversible neurotoxicity (Sessa, 2007).

Decades of anecdotal examples of the positive use of psychedelics as agents for healing are now being backed-up with contemporary clinical trials (Krebs 2013). In the face of continued unremitting mental disorders – especially the anxiety-based disorders – we are seeing increasing numbers of clinicians looking for viable alternative treatment options. All of the contemporary clinical psychedelic studies, though well designed, have nevertheless had to endure considerable ethical and legal barriers – far above those expected by conventional psychopharmacology trials (Sessa and Nutt, 2015).

Psychedelic research studies completed in recent years include a DMT human dose-response study (Strassman, 1995), ketamine psychotherapy to treat heroin dependence (Kruitsky et al., 2007), the use of psilocybin-assisted psychotherapy to treat obsessive compulsive disorder (Moreno et al., 2006) and the use of MDMA to treat PTSD (Mithoefer et al., 2011). And worldwide, there are many more projects underway (www.maps.org/research/).

The current renaissance in psychedelic research is flourishing. It is looking increasingly likely that within the next 10 to 15 years, clinicians wishing to use psychedelic-drug assisted psychotherapy will be able to carry out this form of treatment using regulated, legal and appropriately monitored structures (Sessa, 2012).

Finding the right language for the medical profession

In order to take this work forward, it is essential that we effectively communicate the current resurgence of interest in psychedelic research to the mainstream medical community. It is arguable that one reason the research collapsed in the 1960s is because some clinicians lost touch with the foundations of science that underpin the profession. If we are to encourage the mainstream community to embrace these substances as viable clinical tools this time around, we need an appropriate medical language with which to describe the therapeutic effects. This means choosing the language of evidenced-based scientific methodology.

On the other hand, when working with psychedelics there are central concepts such as *bliss*, *enlightenment* and *self-realisation*, which spontaneously occur during the drug experience (Griffiths et al., 2006). But perhaps these must be understood as *mental* or *psychological* phenomena, rather than in religious terms? Resolving this phenomenological conflict is a great challenge for psychedelic research. We also need to tackle the out-dated drug classification and scheduling regulations that are severely restricting this type of research with psychedelic drugs (Nutt et al., 2013).

We may be in a position to usher in a new paradigm for medicine; one in which transpersonal phenomena – the hallmark of the psychedelic experience – gain a respectable place in mainstream medicine. And then the wealth of experience that lies in the pioneering work of Friederike Meckel and Konrad Fischer can be drawn upon and appreciated by many people in the future.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

References

- Brunner D and Hen R (1997) Insights into the neurobiology of impulsive behavior from serotonin receptor knockout mice. *Annals of the New York Academy of Sciences* 836: 81–105.
- Cozzi NV, Sievert MK, Shulgin AT, et al. (1999) Inhibition of plasma membrane monoamine transporters by beta-ketoamphetamines. *European Journal of Pharmacology* 381: 63–69.
- Fitzgerald JL and Reid JJ (1990) Effects of methylenedioxy-methamphetamine on the release of monoamines from rat brain slices. *European Journal of Pharmacology* 191: 217–220.
- Gasser P, Holstein D, Michel Y, et al. (2014) Safety and efficacy of lysergic acid diethylamide-assisted psychotherapy for anxiety associated with life-threatening diseases. *Journal of Nervous and Mental Disease* 202(7): 513–520.
- Graeff FG, Guimaraes FS, De Andrade TG, et al. (1996) Role of 5-HT in stress, anxiety, and depression. *Pharmacology, Biochemistry and Behavior* 54: 129–141.
- Greer G and Tolbert P (1986) Subjective reports on the effects of MDMA in a clinical setting. *Journal of Psychoactive Drugs* 18: 319–332.
- Griffiths RR, Richard WA, McCann U, et al. (2006) Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. *Journal of Psychopharmacology* 187: 268–283.
- Grof S (1980/2001) *LSD Psychotherapy*. Ben Lomond, CA: Multidisciplinary Association for Psychedelic Studies.
- Hofmann A (1980) *LSD: My Problem Child*. New York: McGraw-Hill, pp. 35–53.
- Krebs TS and Johansen P-Ø (2013) Psychedelics and mental health: A population study. *PLoS ONE* 8(8): e63972. DOI: 10.1371/journal.pone.0063972.
- Kruijsky EM, Burakov AM, Dunaevsky IV, et al. (2007) Single versus repeated sessions of ketamine-assisted psychotherapy for people with heroin dependence. *Journal of Psychoactive Drugs* 39: 13–19.
- Lavelle A, Honner V and Docherty JR (1999) Investigation of the prejunctional alpha2-adrenoceptor mediated actions of MDMA in rat atrium and vas deferens. *British Journal of Pharmacology* 128: 975–980.
- Mithoefer MC, Wagner MT, Mithoefer AT, et al. (2011) The safety and efficacy of {+/-}3,4-methylenedioxy-methamphetamine-assisted psychotherapy in subjects with chronic, treatment-resistant posttraumatic stress disorder: The first randomized controlled pilot study. *Journal of Psychopharmacology* 25: 439–452.
- Moreno FA, Wiegand CB, Taitano EK, et al. (2006) Safety, tolerability, and efficacy of psilocybin in 9 patients with obsessive-compulsive disorder. *Journal of Clinical Psychiatry* 67(11): 1735–1740.
- Nash JF, Roth BL, Brodtkin JD, et al. (1994) Effect of the R(-) and S(+) isomers of MDA and MDMA on phosphatidyl inositol turnover in cultured cells expressing 5-HT2A or 5-HT2C receptors. *Neuroscience Letters* 177: 111–115.
- Nutt DJ, King LA and Nichols DE (2013) Effects of schedule I drug laws on neuroscience research and treatment innovation. *Nature Reviews Neuroscience* 14: 577–585.
- Nutt DJ, King LA and Phillips LD (2010) Drug harms in the UK: A multicriteria decision analysis. *The Lancet* 376(9752): 1558–1565.
- Sessa B (2005) Can psychedelics have a role in psychiatry again? *British Journal of Psychiatry* 186: 457–458.
- Sessa B (2007) Is there a case for MDMA-Assisted Psychotherapy in the UK? *Journal of Psychopharmacology* 21: 220–221.

- Sessa B (2011) Could MDMA be useful in the treatment of post-traumatic stress disorder? *Progress in Neurology and Psychiatry* 15(6): 4–7.
- Sessa B (2012) *The Psychedelic Renaissance: Reassessing the Role of Psychedelic Drugs in 21st Century Psychiatry and Society*. London: Muswell Hill Press.
- Sessa B and Nutt DJ (2015) Making a medicine out of MDMA. *British Journal of Psychiatry* 206(1): 4–6.
- Strassman RJ (1995) Differential tolerance to biological and subjective effects of four closely spaced doses of N,N-dimethyltryptamine in human. *Biological Psychiatry* 39: 784–795.
- Thompson MR, Callaghan PD, Hunt PD, et al. (2007) A role for oxytocin and 5HT(1A) receptors in the prosocial effects of 3,4, methylenedioxyamphetamine (“ecstasy”). *Neuroscience* 146(2): 509–514.

Author biographies

Ben Sessa is an addictions psychiatrist working in North Somerset and Senior Research Fellow at Cardiff University Medical School, where he is conducting the UK’s first clinical study with MDMA for post-combat veterans with treatment-resistant PTSD. He trained originally as a child and adolescent psychiatrist and is interested in the development trajectory from childhood trauma to adult mental disorders. He has been involved in human studies with LSD, psilocybin and Ketamine in recent years in exploring the potential role for psychedelic drugs as adjuncts to psychotherapy. He is the author of *The Psychedelic Renaissance* (Muswell Hill Press, 2012) and co-founder and chair of the UK multi-disciplinary conference dedicated to international psychedelic research, Breaking Convention.

Friederike Meckel Fischer trained as a medical doctor for industrial medicine and additionally for medical psychotherapy. She worked as a psychotherapist for singles, couples and families for almost 20 years in her own practice in Zürich. With Prof. Stanislav Grof in the USA, she trained from 1989 to 1991 as a facilitator in Holotropic Breathwork[®], an alternative method of working with non-drug-induced altered states of consciousness. She also trained in psycholytic therapy, which was possible during a brief relaxation of the laws on the clinical use of psychointegrative substances in Switzerland. Although not legal any more, she began offering individual psycholytic sessions to some of her clients in the late 1990s. She continued working underground with groups of about 16 people. Over a period of nearly 10 years she developed her own setting, tools and integration steps. Next to the effect of the substances and the client’s own silent insights, Meckel used modified Family Constellation work, live-body work, interacting support through the group members, and music to work through difficult, emotionally intense experiences. After she and her husband were betrayed and arrested, she was put on trial in July 2010 and given a 16-month suspended sentence with a probation period of two years. Today she no longer uses drug-induced psycholytic methods in her practice. Being retired she still offers some private psychological counselling and Holotropic Breathwork[®] groups, and gives talks about psycholytic therapy. She has written a book about her own empirically gained findings in her psycholytic therapy (forthcoming, Muswell Hill Press).