

Polluting pharmaceutical atmospheres: Compulsion, resistance, and symbolism of buprenorphine in Norway

Aleksandra Bartoszko 

VID Specialized University, Oslo, Norway

Abstract

This article offers a counter narrative to the current ethnographic studies on treatment with buprenorphine, in which notions of promised and experienced normality dominate. In some countries, introduction of buprenorphine led to a perceived “normalisation” of opioid substitution treatment, and this new modality was well received. However, in Norway the response has been almost the opposite: patients have reacted with feelings of disenfranchisement, failure, and mistrust. Based on ethnographic fieldwork in Norway, this article offers comparative insight into local experiences and subjectivities in the context of the globalisation of buprenorphine-naloxone. I show that the social history of the medication is as significant as its pharmacological qualities for various treatment effects. An analysis of the reactions to this treatment modality highlights the reciprocal shaping of lived experiences and institutional forces surrounding pharmaceutical use in general and opioids in particular.

Keywords

buprenorphine, compulsion, ethnography, nocebo, Norway, opioid substitution treatment

In her article, “To be free and normal: Addiction, governance, and the therapeutics of buprenorphine”, Harris (2015) discussed how buprenorphine¹ treatment offers patients

Submitted: 9 May 2018; accepted: 17 October 2018

Corresponding author:

Aleksandra Bartoszko, VID Specialized University, Postboks 184 Vinderen, 0319 Oslo, Norway.

Email: aleksandra.bartoszko@vid.no



Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-commercial use, reproduction and distribution of the work without further permission

provided the original work is attributed as specified on the SAGE and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

addicted to heroin and their providers “a greater sense of autonomy and flexibility in how they receive and deliver treatment” (p. 512). She also suggested that it “simultaneously perpetuates and shapes a desire to be ‘free’ and ‘normal’” (2015, p. 512). The notions of promised and experienced normality dominate the few available ethnographic studies on perceptions and experiences with buprenorphine. The majority of this research has been conducted in the United States, where this new modality was well received and buprenorphine led to perceived normalisation of treatment (e.g., Harris, 2015; Netherland, 2011). In Norway, however, the atmosphere around buprenorphine-based medications has been almost the exact opposite.

During my fieldwork, I observed that the buprenorphine-naloxone product (Suboxone[®]) in particular elicited negative emotions and hostile reactions among patients. Feelings of disenfranchisement and social and clinical injustice dominated their narratives. Patients described Suboxone[®] as the worst alternative among opioid substitution treatment (OST) medications and as having many side effects, the most disturbing one being dizziness and debilitating anxieties (see also Muller, Bjørnstad, & Clausen, 2018). Available ethnographic studies on buprenorphine (e.g., Harris, 2015; Lovell, 2006; Meyers, 2013) do not report the negative experiences so prevalent in Norwegian treatment discourse, nor do they distinguish between pure buprenorphine and buprenorphine-naloxone. Therefore, in this study, I was driven to ask these empirical questions: What may have conditioned buprenorphine products, particularly Suboxone[®], to be such an unpopular medication among patients in Norway? What has shaped its reception, and how has the clinical community interpreted patients’ reactions?

Based on archival studies and ethnographic fieldwork conducted in Norway, this article offers an insight into local experiences and subjectivities in the context of the globalisation of buprenorphine. A historical outline of the OST

pharmaceutical atmosphere around the introduction of Suboxone[®] in particular and an analysis of the reception and current resistance to this treatment modality highlight the reciprocal shaping of lived experiences and the institutional forces surrounding pharmaceutical use in general and opioids in particular.

Theoretical framework

Analyses of lived experiences and subjectivities related to the consumption of pharmaceuticals question the pharmacotopic view of pharmaceutical treatment (e.g., Jenkins, 2015; Ninnemann, 2012; Sanabria, 2014). I define *pharmacotopia* as an idealised and overly optimistic imaginary of pharmaceuticals’ universal efficacy. The expectation is that patients will respond to particular medications in a similar way, a promised narrative promoted by global marketing forces, supported by the pharmacological research community, and eagerly reproduced by local clinicians in encounters with patients. Driving these imaginaries is the underlying assumption that biological bodies react universally in all settings, but also that clinical contexts are devoid of local singularities. However, researchers have documented individual responses to pharmaceuticals and have pointed out that cultural and social contexts shape how patients taking pharmaceuticals perceive and report effects and side effects of medications (Etkin, 1992; Ninnemann, 2012; van der Geest & Hardon, 2006; Zinberg, 1984). Previous studies on OST have also demonstrated that substances do not have a priori qualities and that they change according to their use, location, socio-political contexts, and related discourses (Gomart, 2002; Keane, 2013). Yet clinical practitioners, as well as scholars investigating pharmacological efficacy, often lean on narrow, biologically reductionist definitions and therefore view drug effects as predominantly a product of pharmaceutical action. In line with an increasing number of scholars, this article emphasises a deeper understanding, resting on exploration of how the cultural, socio-political,

institutional, and biological processes, separately and in combination, mediate treatment responses (e.g., Lawson, 2008; Malhotra, 2001; Sanabria, 2014; Schlosser & Ninnemann, 2012).

As ideas, values, knowledge, technologies, and pharmaceuticals travel, so does buprenorphine and its promised narrative. “When ideas like ‘metabolic lesion’ and techniques such as [Methadone maintenance treatment] become truly cosmopolitan, however, they settle into certain institutional landscapes at particular historical moments,” Saris (2008, p. 267) pointed out. My interlocutors’ engagements with buprenorphine evolved in a particular socio-pharmaceutical landscape with its local histories, political struggles, moral constraints, and bodily sensations that constitute what I call *pharmaceutical atmosphere*. Here, atmosphere refers to both an empirical reality and an analytical category, which I apply to capture the prevailing tone and mood relating to buprenorphine in Norway. Böhme (1993) wrote:

Atmospheres are indeterminate above all as regards their ontological status. We are not sure whether we should attribute them to the objects or environments from which they proceed or to the subjects who experience them. We are also unsure where they are. They seem to fill the space with a certain tone of feeling like a haze. (Böhme, 1993, p. 114)

Thus, if we follow Anderson’s (2009) understanding of atmosphere as “shared ground from which subjective states and their attendant feelings and emotions emerge” (p. 78), then the pharmaceutical atmosphere is that shared ground related to pharmaceutical use. The pharmaceutical atmosphere that I explore empirically appears as a hazy composite of individual and shared emotions, clinical practices, political tensions, and legal and scientific narratives that are manifested in human bodies. As a potential that emerges effectively at the conceptual and sensory levels, pharmaceutical

atmospheres are an important part of pharmaceutical efficacy. While affecting relations between people and drugs, atmospheres are also political. They inform the ways in which both patients and treatment providers describe or think about themselves and others, and the ways in which they are described by others in relation to pharmaceutical use.

Context: Opioid substitution treatment in Norway

In opioid substitution treatment (OST), patients with opiate addiction receive a long-lasting opioid substitute for – usually illegal – heroin under controlled conditions. These substitutes, such as methadone or buprenorphine, are said to eliminate heroin withdrawal symptoms and reduce cravings while blocking the effect of injected heroin. Methadone treatment became available first in the United States in the 1960s, after physician Vincent P. Dole and psychiatrist Marie Nyswander developed this medication for treatment of addiction, which they defined as “a metabolic disease” (Dole & Nyswander, 1965, 1967). Gradually, substitution medication – methadone, and later buprenorphine – emerged as the dominant treatment for heroin addiction worldwide.

Treatment of opioid addiction with substitution medication has shown an increased patient survival rate, along with a diminution in health damage, criminal behaviour, and somatic diseases, compared with psychosocial treatment alone (Hedrich et al., 2012; Riksheim, Gossop, & Clausen, 2014; Skeie et al., 2011).

However, in Norway throughout the 1970s and 1980s, policy makers largely viewed medication in treatment of substance addiction with scepticism. The most prevalent arguments against substitution medication were based on optimism surrounding medication-free treatment. Methadone was symptomatic of a degrading attitude toward one’s fellow human beings and a loss of faith in people suffering from addiction and their ability to change. It was as if methadone condemned people to

lifelong addiction (Frantzen, 2001; Skretting & Rosenqvist, 2010). Opposition to pharmaceutical treatment at that time may have been a reflection of the medical profession's relatively minor role in the addiction field, which was primarily dominated by social workers and, to a lesser extent, psychologists. However, with the Substance Treatment Reform in 2004, responsibility for treatment of addiction moved from social services to specialised healthcare.

Also, fearing an HIV epidemic in 1997, the Norwegian Parliament, accepted a harm reductionist approach and allowed access to pharmaceutical treatment. Hence, methadone treatment became available through a nationwide programme, methadone assisted rehabilitation, in 1998. The treatment is mainly outpatient, with medication supplied free of charge at a local pharmacy or through the OST centre. Patients pay deductibles for outpatient examination, consultation in a hospital, and urine testing, although treatment team meetings are free. Current OST guidelines recommend three types of substitution medication: methadone, high-dose buprenorphine (Subutex[®] or Buprenorphine²), and a buprenorphine-naloxone combination (Suboxone[®]). Other medications, such as morphine, can be used if the prescriber documents reasons for diverging from the guidelines. Currently, there are four main recommendations regarding the choice of medication:

1. Buprenorphine should be the first drug of choice during substitution treatment.
2. Patient's preference should be emphasised in the choice of medication.
3. Buprenorphine should be prescribed as a combination product with naloxone (Suboxone[®]).
4. Stable and drug-free patients should be able to use the mono-product, Subutex[®], if there is no suspicion of diversion or injection.³ (Helsedirektoratet, 2010, pp. 51–52)

The OST system aims for a rather high degree of control. For both methadone and

buprenorphine products, medication must be taken under daily supervision until evaluations indicate the patient has stabilised and gained sufficient control over his or her drug use. In reality, this means the patient provides urine samples free of illicit and non-prescribed drugs. Once the patient stabilises, self-administration of the medication at home may be granted to an increasing extent. Medication lasting for up to a week – or more, depending on pre-approved travel plans – may be available in such cases.

The proportion of OST patients on methadone treatment has been steadily declining. Currently, buprenorphine is mostly used as a mono-preparation and less frequently as a combined preparation. Interestingly, the variation between counties is huge. Methadone treatment is more prevalent at OST centres in the eastern regions compared with those in western regions and central Norway, where it is rare. According to the Norwegian Centre for Addiction Research (SERAF) at the University of Oslo, this difference is difficult to explain in terms of treatment indications or clinical issues (Waal et al., 2017) and seems to illustrate local variations in interpretation and practice of national guidelines. Most decisions made in the local OST centres are dependent upon the attending physician in charge of prescriptions, who is influenced by personal preferences, local organisational structure, and culture (Bartoszeko, 2018a; Gjersing, Waal, Røislien, Gossop, & Clausen, 2011).

At the end of 2017, 7622 patients were in OST. The average age of these patients was 44.9 years and approximately 70% were men (Waal, Bussesund, Clausen, Lillevold, & Skeie, 2018).

Data and methods

The overall objective of my fieldwork was to explore the experiences of OST patients within the context of the 2004 Substance Treatment Reform, which granted rights to persons diagnosed with dependence syndrome. Increasingly, I focused particularly on patients'

experiences with a change of treatment modalities that appeared to be contentious. During a year-long (2013–2014) ethnographic fieldwork in several Norwegian municipalities, I closely followed six patients who wished to switch or keep their medication. OST patients are a heterogeneous group: those leading very stable, mainstream lives; those actively engaged in hustling in open drug scenes; and those in between these two extremes. My interlocutors belonged to all categories. They used different combinations of medications depending on their condition and geographical location. The interlocutors were recruited through a snowballing method, beginning with my initial contact with an OST patient who was recruited through a personal network. Participation in the study was based on an informed consent procedure approved by the Norwegian Centre for Research Data. The Regional Committees for Medical and Health Research Ethics (REK) evaluated the project and found no reason to apply additional regulations specific to medical and health research.

Participant observation was a key fieldwork component. Among other things, I accompanied the patients during OST consultations, pre-hospitalisation meetings, and meetings with their treatment teams, lawyers, or patient associations. I also followed them through their everyday OST activities, such as visits to pharmacies, low-threshold health clinics, detoxification units, and urine-collection sites. While the most intensive relationships were developed with these six patients, I also met their friends, friends-of-friends, and other OST patients, who shared their stories. Many of them were satisfied with their treatment.

Altogether, I collected around 40 treatment stories from patients of different ages, treatment experiences, and preferences. In addition, I participated in relevant events such as patient gatherings, workshops, local professional addiction conferences, seminars, and courses, which yielded insight into the main narratives and rationales in the field. I also conducted over 60 in-depth interviews with representatives of

patient organisations, addiction researchers, OST physicians, OST consultants, social workers, general practitioners, health bureaucrats, patient ombudsman, and lawyers.

Ethnographic field notes included “close, detailed reports of interaction” and “records of actual words, phrases, or dialogue” (Emerson, Fretz, & Shaw, 1995, pp. 14, 32). For the purpose of this study, I coded notes, transcripts from recorded interviews, documents (e.g., health records, OST guidelines, and white papers), and archival media articles, analysing them for key empirical themes related to buprenorphine. I further analysed these themes against keywords from clinical guidelines (such as “side effects”), from empirical and analytical concepts found in previous ethnographic studies on buprenorphine (such as “normalisation”) and from health sociology and anthropology (such as “placebo”), in order to discover how these corresponded to the ideas and experiences of patients and clinicians in treatment practices in Norway.

Buprenorphine and buprenorphine-naloxone settling in

Sociologist Esben Houborg (2012) used the term “political pharmacology” in his work on methadone and heroin in Danish drug policy. He highlighted that the social construction of drugs is a political affair, including questions of how “different kinds of knowledge and different concerns are represented and negotiated when drugs are constituted in particular ways” (Houborg, 2012, p. 159). These clinicopolitical constructions – together with individual and shared emotions, clinical practices, political tensions, and legal and scientific narratives – shape pharmaceutical atmospheres. Therefore, how OST medications were introduced and marketed is significant for a better understanding of the current Norwegian OST atmosphere.

When the Norwegian Parliament decided to allow pharmaceutical treatment for opioid addiction, methadone was the first medication

available. This moment in Norway's pharmaceutical history, alongside global developments, shaped the present-day policy and discourse regarding substitution medication, including their clinical and public reception. In an interview, Casper Monstad,⁴ a leading researcher in addiction medicine and pharmacology in Norway, stated his understanding of the relationship between clinically related pharmaceutical innovations and the political landscape:

When they [the politicians and clinicians] started OST, even if I know perfectly the reason for it, they have married one drug. The programme was called methadone assisted rehabilitation [*Metadonassistert rehabilitering*] back then. This made sense in many ways [...] The decision-making process made it possible for the programme, if implemented, to stay among politicians [laughs]. Obviously, they should take all the important decisions. However, when they decided upon the medication substance, it became [politicised]. Later, when they started, about 2000, 2001 I think, to explore the possibilities of using another drug, buprenorphine or what was named just Subutex[®], the extent of using another substance, too, was politicised. [...] I say this because the decision regarding treating our drug addicts, including the types of drugs, even contexts, has moved from the clinical to the political arena.

Exploring further the history of buprenorphine, I asked Andreas Bore, a medical researcher, about the introduction of buprenorphine, a process in which he was involved. Bore recalled:

When you introduced methadone, you kind of became tied to it. The way we had to argue for buprenorphine was different. We had to prove why it was *better* than methadone. Because, you know, they [the politicians] wondered why we needed yet another substance when we finally had convinced them that methadone was great, kind of. Therefore, overdose and diversion were main topics here.

Asked if there were higher numbers of overdoses and diversions of medication than before OST was introduced, he replied, "Yes, we have more diversion now, because of the wider availability of the medicines, but the way we are talking about it has changed".

In line with other researchers, clinicians, and health bureaucrats that I interviewed, both Monstad and Bore emphasised the strong ties between the government and the clinic in terms of how pharmaceutical treatment had developed in recent years. Moreover, as I read Bore, governmental approval regarding incorporation of new medication into treatment required a change in the narrative. Before this attempt, evaluations of methadone treatment had suggested that the political acceptance of OST was likely to continue. Clinicians, researchers, and pharmaceutical companies were compelled to conduct marketing along new lines.

When studied in isolated and decontextualised conditions (Bartoszko, 2018b), buprenorphine is less likely to depress the respiratory system and less likely to cause overdose, unlike full agonists such as methadone and morphine. The drug's pharmacodynamic qualities, combined with persuasive marketing, have led many authorities, including Norwegian officials, to argue that buprenorphine is a safer drug with respect to risk of overdose and diversion (Helsedirektoratet, 2010). Thus, together with the suggested associated reduction in social risks, the pharmaceutical companies, supported by the Norwegian clinical community with their small-scale self-initiated projects, succeeded in their efforts, and buprenorphine mono-preparation was accepted as an alternative in 2002 (Skretting & Dammen, 2004).

Yet treatment effectiveness combined with it being a viable alternative to existing therapy was not enough to ensure buprenorphine's acceptance. As in other countries following this pharmaceutical trajectory, the drug had to be narrated and constructed in relation to existing methadone treatment (Harris, 2015; Ling et al., 2010; Netherland, 2011). This time, the main focus was not primarily on how the drug would

help individual patients to overcome addiction, but on its capacity to solve problems associated with illegal activities (diversion), including methadone-related deaths, while protecting public health in general.

Ling et al. (2010) emphasised another factor that influenced the adoption of innovative medications arising from societal attitudes:

Methadone is not condoned in many circles because its full agonist properties are seen as too similar to the effects of the very drug that is being counteracted—rather than an effective treatment for the disease state. What is needed in most cases is a compromise, whereby the treatment for addiction is effective but not negatively perceived by society. In that regard, buprenorphine is a balanced medication, with agonist and antagonist characteristics that yield minimal reinforcing effects and negligible noxious side effects. It meets the needs of both patients and society, striking a successful therapeutic balance. (Ling et al., 2010, p. 54)

The strategic over-communication of methadone's high-inducing properties made buprenorphine a "light" or, in other words, a more "public-friendly" version of methadone. In their history of buprenorphine as an addiction therapeutic in the United States, social scientists Nancy D. Campbell and Anne M. Lovell (2012) wrote, "Aimed as both a social and a pharmacological 'fix,' buprenorphine must work at both levels if it is to work at all—that is, if buprenorphine is to shed the stigma of methadone symbolically" (p. 136). Following that narrative comparison, methadone received increasingly negative political and public attention in the following years. Methadone became marginalised as buprenorphine soared ahead of other substitution medicines, not only in quickly increasing prescription rates, but also in the narrative among clinicians as "the best medication in the world" (Bartoszko, 2018a).

Within a few years, however, buprenorphine clearly did not turn out to be the "magic bullet", as diversion and overdoses continued. Also,

producer Reckitt Benckiser's patent for Subutex[®] was set to expire (Campbell & Lovell, 2012; Sontag, 2013). Responding to the needs and desires of the market (politicians managing the treatment in this case), the company intensified its marketing of Suboxone[®]. This product combined buprenorphine with naloxone, bringing it under the "technology of suspicion" (Meyers, 2013, p. 76), which governing bodies and decision-makers desired and welcomed. Adding naloxone (an antagonist used as an antidote during opioid overdose to reverse the opioid effect) was supposed to discourage both misuse through injection and diversion of the drug to the illicit market. According to the producer, naloxone is inactive when absorbed sublingually, but provokes sudden withdrawals when injected. However, according to OST guidelines, "[t]here is no good clinical documentation confirming the expected effect or side effects of naloxone if Suboxone[®] is injected. Suboxone[®] received marketing authorization despite the paucity of studies on this issue" (Helsedirektoratet, 2010, p. 51). Suboxone[®] was registered for use in OST in 2007.

Campbell (2011) noted, "[e]ach technological fix in the medicalization of addiction creates new subjects and new modes of existence" (p. 124). As I explore how Norwegian patients reacted to this pharmacological innovation and how the clinicians interpreted those reactions, I argue that it also creates *new modes of resistance*. First, however, what kind of buprenorphine got into the clinic?

"Buprenorphine is buprenorphine"

Siv, a 49-year-old OST patient, had been in treatment with morphine for three years when OST doctors decided to discontinue her treatment, despite acknowledging that it had been successful. Siv's treatment team referred to the national guidelines and offered her a transfer to buprenorphine. Rejecting it, she would be excluded from the programme. Having had a

negative experience with illicit Subutex[®] (such as nausea, anxiety, and persistent cravings), Siv did not want to change treatment modality. After a few rounds of meetings and correspondence with OST doctors and consultants without achieving agreement, she filed a complaint with the County Medical Officer. Having received a written response to her letter, she asked me to visit her the following day to help her scan the document in order to forward it to the Health and Social Services Ombudsman. Catching an early morning train, I waited for her at the park next to the station. She had received a refusal, and she was furious, saying: “You have to read this” and “They are out of their minds! Where are my patients’ rights?” Letting her dog off the leash, she lit a cigarette and started reading. The wording was almost identical to the last letter, which had listed Siv’s options. She read almost mechanically, giving the impression that she had already read it a few times without really paying attention to its content. She was familiar with the words. Suddenly she stopped, “What?! Suboxone[®]?! Are they going to plunge me completely with it?” She sounded resigned and a bit scared. In the former letters and during treatment meetings, “buprenorphine” or sometimes Subutex[®] was a suggested treatment modality. But her reaction told me that the distinction between two “buprenorphines” (with and without naloxone) was much more significant than the social science and OST literature acknowledge. Similarly, during the consultations that I attended, the clinical narrative was that “buprenorphine is buprenorphine”. During the fieldwork, my impression had been that many physicians and OST consultants used the names “Subutex[®]”, “Suboxone[®]” and “buprenorphine” interchangeably, and they often did not specify which buprenorphine product they meant. When I asked Siv if it made any difference, she almost shouted, “Of course, it does! This is even fucking worse. I will never survive it! They must be out of their minds!”

Later, I consulted the OST guidelines for more details on the two buprenorphine

preparations. Because of Siv’s reaction, I was particularly interested in the side effects involved. The guidelines included this:

Blind studies of buprenorphine and the combination products show few side effects when they are used properly. A difference between buprenorphine with and without naloxone in regard to the effect or side effect profile is highly unlikely if the medications are taken properly (sublingually). Due to the short half-life of naloxone, any pharmacological effects will also be expected to last a few hours at most after intake. (Helsedirektoratet, 2010, p. 51)

In its 2015 OST report, the Norwegian Centre for Addiction Research (SERAF) commented on buprenorphine dosages:

It is striking that there is a stable pattern that the combination preparation is dosed lower than the mono-product. The effect of mono- and combination preparations should be equivalent and any potential differences would rather pull towards the higher doses when using the combination with antagonist (Suboxone[®]). A possible explanation may be the side effects or patient’s anxiety for the side effects. There may also be less pressure for high doses because the resale price is low or the demand low. (Waal et al., 2016, p. 36, my parenthesis)

These documents did not confirm Siv’s opinion regarding the dramatic difference between the two buprenorphine products. On the contrary, official sources seemed to emphasise the products’ similar effectiveness and side effects. I visited clinician Jan Erik Winger, one of the authors of the national OST guidelines, to discuss the issue. His response was almost a quotation of the guidelines. Interestingly, he applied the same reasoning to other medications and their forms, which the patients often experienced as having different effects on them. Following are excerpts of our conversation:

Jan Erik Winger: There is no medical difference [between

methadone in tablets and liquid]. There are some [patients] who say that the liquid has a much worse effect compared to the tablets, but it is exactly the same thing... Therefore, it is... they [patients] have lots of ideas and myths.

Researcher: For example?
Jan Erik Winger: That they cannot tolerate the liquid, yet they tolerate tablets.

Researcher: OK, what you are saying is that there are myths. So how do you evaluate, as a physician or researcher, when the patient says that he cannot tolerate something, when he says, "I cannot tolerate methadone", or "I cannot tolerate Suboxone[®]" or "I feel bad after morphine?" How do you assess if this is all in their minds or something else?

Jan Erik Winger: Well, one must consider this in relation to the biological knowledge of how things work in the body. This means that both known and unknown side effects and the difficulties that could arise within the body must be taken into consideration. If it [the patient's report] is completely unreasonable in relation to all available medical knowledge, then you have to say,

"Well, it does not make sense". An example would be methadone tablets versus liquid. Both are, in principle, the same drug. They work just about the same without much difference. This means that if people cannot tolerate liquid, they cannot tolerate tablets either.

Researcher: You are now speaking of the effect, not the form of intake, right?

Jan Erik Winger: Yes, when it comes to effect, really, it makes no difference.

According to Winger, clinical studies have not shown any difference between the two types of methadone. To explain the reported difference, he referred to patients' wish to divert pills and collective myths and imaginaries. Much like other OST clinicians, Winger had the same explanation regarding Subutex[®] and Suboxone[®]. However, patients' experiences with these medicines challenge the homogenising narratives and pharmacotopic imaginary of buprenorphine. Particularly, Siv and many other patients emphasised the significant difference between Subutex[®] and Suboxone[®]. This situation illustrates the perpetual debate based on variances between patient experiences of symptoms associated with medications and what physicians can acknowledge or prove about them. Such debates produce long-standing dilemmas about biological authenticity and who gets to authorise the treatment experience.

As ethnographic works on buprenorphine (e.g., Harris, 2015; Meyers, 2013) also tend to under-communicate the distinction between buprenorphine products, I posed this problem to some anthropologists working on the subject. One of them, Shana Harris, the author of the

article, “To be free and normal” (Harris, 2015), responded in our email correspondence:

When I was doing my research, “buprenorphine” was used synonymously with “Suboxone”. Also, not much of a distinction was made in interviews and observations between Suboxone and Subutex. The only time the difference between the formulations was mentioned was when I was told that Subutex was only really used during the first few days of treatment while Suboxone is prescribed for maintenance. (Harris, personal communication, 2016)

Yet, as I have shown, patients in Norway find this distinction significant, which they made very explicit. The story of this epistemological and experiential distinction attracts both descriptive and analytical attention. It is a testament to the significance of the local pharmaceutical atmospheres and the socio-history of pharmaceuticals for their effects, understood as both bodily experiences and socio-political conditions.

Compulsory transfers

Leah, a 47-year-old OST patient, who had now been in treatment with Subutex[®] for four years, told me about her first meeting with OST. After her OST consultation, she was prescribed Suboxone[®] instead of Subutex[®], which she preferred based on her illegal experiences. She exclaimed recalling the accompanying emotions, “I was scared to death. Imagine! Suboxone[®]! Antidote!” This mirrors the most common emotions associated with Suboxone[®]: fear and anxiety. The medication, including an antidote (naloxone) that most heroin users associate with the unpleasant withdrawal state induced by emergency personnel after an overdose, elicited negative reactions from many patients. In general, Suboxone[®] was considered bad by the patients I met.

Comparatively, these local narratives are interesting in light of the Suboxone[®] stories described in the literature (Harris, 2015; Lovell,

2006; Meyers, 2013), and a significant factor could be the patients’ awareness of the drug’s components. However, I argue that the atmosphere and the contexts that were responsible for familiarising patients with the product served to shape its reception and the accompanying resistance.

First, buprenorphine was introduced in Norway as a treatment drug in quick succession to methadone. The “long shadow” of methadone apparent in the United States was absent in Norway. Hence, patients did not have the same long, complicated history with methadone as their counterparts in the United States, where local history had generated many negative experiences of both patients and providers. Therefore, I argue, when buprenorphine was introduced in the United States in 2002, the medication’s “social” contexts and effects in particular were often compared with those of methadone and considered more “favourable” (Harris, 2015) as a result.

Second, the material connection to the clinic, which Meyers (2014) called “a spatial locus of therapeutic promise” (p. 188), differs across the globe. In the United States, methadone was distributed in stigmatised and racialised clinics, while buprenorphine was marketed as “GP friendly”, a doctor’s-office-based treatment (Bourgeois, 2000; Hansen & Roberts, 2012; Harris, 2015; Netherland, 2011). In Norway, however, methadone treatment, despite patients’ criticism, was often distributed through pharmacies and never acquired this type of negative connotation. Thus, buprenorphine was introduced and presented as an alternative to methadone in a similar institutional setting. The symbolism of the place remained unchanged. Since buprenorphine was presented as an alternative – at least in theory – its pharmacological qualities attracted more attention. Most significant, however, are the events of 2007.

When the Ministry of Health decided to replace Subutex[®] with Suboxone[®], all new patients received Suboxone[®], and those receiving Subutex[®] or methadone were gradually

transferred to Suboxone[®]. A few weeks later, reports of extensive illicit sales of Subutex[®] in the Bergen area of western Norway suggested that the drug had become more attractive to drug users than heroin. Expressing concern over this development, OST centres in Bergen and Trondheim decided to hasten the Ministry's plan and ordered all patients to be put on Suboxone[®] over the summer. Accordingly, many patients were subjected to compulsory transition to Suboxone[®], often at the expense of their existent stable treatment. Approximately 25% of the patients in Bergen complained of side effects, including anxiety, nausea, and a variety of withdrawal symptoms. The Norwegian Board of Health Supervision received many medication transfer-related complaints at the time, and media reports on this politico-pharmaceutical transition in treatment modality generated strong protests from users and patient organisations (Morland, 2007a, 2007b; Sanden, 2007; Sosial- og helsedirektoratet, 2008).

The same "collective transfer" was attempted in 2010. The Fonna Hospital Trust (Helse Fonna) in western Norway informed the Norwegian Board of Health Supervision (internal documentation):

The OST guidelines refer to a double blinded study which concludes that there is no difference between the effects and side effects of Subutex and Suboxone. We have considered this, as we cannot allow the subjective differences experienced to influence the choice of medication. The only professional criterion for Subutex's eligibility is pregnancy or objectively proven allergic reaction to an additive in Suboxone. Therefore, OST Helse Fonna decided to start a process, the goal of which was to convert Subutex users to Suboxone during the spring of 2011. We assume that this will provoke many complaints to the Norwegian Board of Health Supervision in Hordaland regarding the choice of medication. Therefore, we are sending this information in advance. We will not be able to give enough specific reasons for conversion for a single patient beyond the general information that is given here.

The Board did not accept the organisation's decision, and responded by referring to the Patients' Rights Act, the OST guidelines, the Specialist Health Service Act, and the Health Personnel Act, concluding that a switch of OST treatment medications must be based on an individual, thorough assessment of the patient. Despite the Board's response, a few of my interlocutors treated at Fonna Hospital Trust were subjected to forced transfers. Two moved to other regions (OST centres) in order to receive Subutex[®]/methadone because of the unwanted effects they experienced with Suboxone[®].

Anne and anxieties

The story of Anne, who was among those forced to switch medications, highlights the reciprocal shaping of lived experiences and the institutional forces surrounding pharmaceutical use. While illustrating the power of compulsory transfer, Anne's story emphasises the interconnectedness of the setting for consumption, the bodily experience, and perception of consumed substances (cf. Zinberg, 1984).

Forty-five-year-old Anne had been in successful treatment for 12 years, which she and her OST consultants confirmed. In 2007, she was treated with Subutex[®], and consequently did not take illicit drugs and was able to maintain a job and a meaningful family life with her children and friends. A home nurse delivered medication to Anne once a week. One day, when the nurse came with Suboxone[®], Anne could not understand why the OST had changed her medication since she had functioned so well with Subutex[®]. According to OST and health authorities, both medications worked the same way, and the change was safe. "Nevertheless", says Anne, "why should I try? I had a good life finally, stable dosage, no illicit drug use and no disturbing side effects. Why should I risk this?" Despite her resistance, she was forced to take Suboxone[®], or go without medication, which, as a mother of two, she could not afford to risk. She became very sick after the first pill and

threw up the medication, which resulted in withdrawal symptoms. Consequently, she took more of the medication to get rid of the symptoms and became sick every time. During the entire process she developed serious anxiety, which remained constant over the following years when OST doctors tried another three times to transfer her to Suboxone®. She said, “Imagine, you are afraid all the time that they will try to transfer you again. But I got so sick. And the anxieties. It’s OST’s fault”. When I asked, “So, you don’t think it was Suboxone® that had provoked the anxiety?” Anne responded, “That too. But it was OST’s fault, all this uncertainty and force and . . . You know, so many people got sick after that” [the forced transfer]. The question arises: Was Anne experiencing side effects from the medication or from the treatment? Is it possible to separate the two?

Placebos, nocebos, and compulsion

Like other patients in her situation, Anne was told that the medication’s side effects were “only in her head”, because no evidence indicated such strong differences in patients’ reactions to a buprenorphine with or without naloxone. Nor was there any evidence indicating that these products increased anxiety, which was a common narrative among patients inside and outside the clinic. Today, the discussions on the relation between buprenorphine and perceived anxieties has become more nuanced, even though it is dominated by references to pharmacological characteristics of the substance. Physicians either refused to accept patients’ reports about buprenorphine inducing or provoking anxieties, or they explained the experienced anxieties as lacking attenuation, which patients may receive while using methadone, morphine or heroin. For instance, Jan Erik Skjølås, the psychiatric nurse and head of the Health and Overdose Team (*Helse- og overdoseteamet*) in Trondheim, suggested in the presentation, “Clinical experiences with use of

Suboxone”, presented at a 2016 national meeting for OST leaders:

Patients wake up. They become clearer in their heads and they see the challenges in life as they are without any form of attenuation. As a result, what they have been through reappears as trauma. They no longer experience any “veil” that attenuates mental symptoms.

In 2007, however, the debate was much more polarised and patients’ experiences were simply dismissed. In one article regarding forced transfers, Steinar Madsen, medical director in the Norwegian Medicines Agency (*Legemiddelverket*), confirmed that the agency had received several reports about people becoming ill from the new medication. He commented:

There are reports of side effects, but only from Bergen. Non-specific symptoms such as malaise and nausea are reported. We do not think this has anything to do with the drug itself [. . .] There are psychological mechanisms [. . .] in particular, because this phenomenon occurs only in Bergen. (Skotland, 2007)

In the same article, the doctor and senior advisor from the Directorate of Health, Gabrielle Welle-Strand, said: “It is obvious that some patients experience discomfort from this drug. Some reactions may, surely, be attributed to concerns regarding a new drug and not side effects of [naloxone]”.

Cultural and social contexts of consumption shape how patients taking pharmaceuticals perceive and report adverse effects of treatment, and therefore, when analysing the efficacy of pharmaceuticals, attention to lived experiences is particularly important. Nevertheless, as mentioned earlier, we must not ignore the biological body’s contributions to lived experiences. We need to approach pharmaceutical efficacy as a complex interconnection of the biological, sociocultural, and structural factors conditioning individuals’ responses to drugs consumed and their experiences and evaluations of them.

During the forced transfers, knowledge regarding Suboxone's[®] side effects was sparse. Some differences in pharmacological effects cannot be completely rejected; an estimated 10% of naloxone used in Suboxone[®] is transferred to the patient's blood (Sosial- og helse-direktoratet, 2008). As research documents and my field experience indicate, individuals may respond quite differently to the active substances in a medication, which may apply to the naloxone component of Suboxone[®] as well and could explain some of the troubles patients reported. However, the magnitude of the problem did make the prescribing physicians sceptical and suspicious towards the patients' experiences and motives. Clinicians often cited collective myths (as in the quotation from Jan Erik Winger) and nocebos to explain the anxieties patients described during consultations, especially when patients and clinicians did not agree on treatment modalities.

When I asked a general practitioner, Jørgen Egeland, about the patients' strong aversion to Suboxone[®], he confidently said:

It is a nocebo effect, that's what it is. We have adequate proof of this from Bergen [...] we never witnessed so many side effects of Suboxone[®] as in Bergen at that point in time and they were all real side effects. The users got sick... So even if it was a nocebo... but nocebo is damn real. And it is clear that when it has spread... when you have been so foolish with the introduction of Suboxone[®], you are left with lots of nocebo effects with which it is very hard to make any kind of progress.

In clinical language, the placebo effect is usually defined as a physiological positive effect caused by an inert substance, the placebo. A placebo response is one that cannot be attributed to an investigational intervention and is related to the patient's perceptions and expectations. If the substance is viewed as helpful, it can heal, but if it is viewed as harmful, it can cause negative effects, known as the nocebo effect. The nocebo response describes a

negative symptom induced by the patient's own negative expectations and/or the negative suggestions of clinical staff in the absence of any treatment or any other source of information. In pharmacology, the term often relates to the experience of adverse, nonspecific side effects that are not the direct result of a specific pharmacological action of a drug (Barsky, Saintfort, Rogers, & Borus, 2002).

Egeland's colleague, Christian Pettersen, expressed the same view when he said that this patient group was exceptionally susceptible to the circulating myths. He noted:

They are very receptive in terms of what I call nocebo. And also to placebo! In the kind of environment they are in, they tend to be influenced by each another, especially in this culture. This culture is not always evidence-based, I mean [laughing], when it comes to pharmacology. A good part of this is superstition. [...] and that is the reason for the Suboxone[®] nocebo, it is very serious. I mean, it is very serious. And it will remain very serious for many years.

As we can see, the placebo and nocebo effects can be used as explanations that both favour and disfavour patients, but regardless of how they are used, they are challenging concepts, if not problematic. They assume that pharmaceuticals are socially inert substances and they may obfuscate and stigmatise patients' lived experiences. These concepts, being a product of the body–mind dualism are, as Haller (2014) pointed out, “found almost exclusively in the biomedical world of reductionist science”, which uses these concepts in an attempt to “build a bridge between the material and the psychosomatic and behavioural side of healing” (p. 86). This epistemology places no importance on the setting for intake of drugs (cf. Zinberg, 1984), and does not take into account the fact that biology is both local and social, or what Lock and Kaufert (2001) termed “local biologies”. Anthropologists who study nocebos and placebos have documented that the “same” biological and pharmacological processes in

different pharmaceutical atmospheres may have different effects (Adler, 2011; Hahn & Kleinman, 1983; Moerman, 1983, 2002). By extension, the pharmacological processes may differ across places and contexts.

Radley (1996) claimed that using the notion of “placebo effect” to describe effects and reactions to any therapy does not do justice to the power of social meanings and biographical events. He noted that referring to phenomena as placebo effects “suggests, unwisely, a contrast between the material and the existential spheres, as if what happens ‘psychologically’ might be judged separately from (and either better or worse than) what is done ‘physically’ to the patient” (1996, p. 134). In Radley’s (1996) analysis of patients who underwent coronary bypass surgery, he discussed the operation as

a drama, a realm of significant meaning, in its evocation of powers that are irreducible to the cuttings and sewings involved [... It is] a moment, both in the sense of an instant in time and as a point about which other events turn, a kind of liminoid period (Turner, 1982). It is a critical period, which at once disrupts the person’s life, and yet is presented (by doctors) as the only route to a healthier existence. It is also a psychological and social turning point in the life of the patient [...] in that it ties together body, self and personal world to form a parameter about which biographical reconstruction must take place. (Radley, 1996, p. 134)

Following this perspective, for the patients subjected to compulsory transfer of medication, the transfer itself became such a significant and dramatic event that it influenced not only the way the new medication was perceived, but also how it was received.

Suboxone® as metonymy

The involuntary change of treatment modalities, seen as a specific treatment technology, became significant in the history of the Norwegian OST and altered the pharmaceutical

atmosphere surrounding Suboxone®. According to Geertz (1995), history is created in the present, and is a myth that “does not describe what happened, but what happens” (p. 3). This more or less intentional mobilisation and actualisation of the past helps people orient themselves in everyday life (Connerton, 1989). The images of the past create a moral and cognitive framework that manages our expectations of the present. Particularly, although not exclusively, during the process of social change, personal crises and uncertainties, people switch between positive and negative judgements of the past; from a repertoire of memories, they select or reject those recollections that help them manage everyday life and legitimise their actions.

From that perspective, I found it necessary to investigate the “memories of Suboxone®”, as patients I met were actively engaged in recalling them during their quest to create meaning in their current pharmaceutical landscape. An investigation of this history was crucial to my understanding of the observed continuing resistance towards Suboxone®. This insight invites an approach to pharmaceuticals not only as material entities, but also as metonyms for a disease, a doctor, or in this case, a treatment policy based on coercion and compulsion. Van der Geest and Whyte (1989) wrote, “The medicine stands for a less tangible experience of which it was a part, as the seashell serves as a memento for the beach one has known as a child” (p. 359).

By using their power to compulsorily change treatment modalities, the clinicians sent significant signals to the patients. Through Suboxone®, they communicated their power, authority, and diagnostic supremacy as well as their attitudes, values, and priorities, which patients interpreted as a homogenisation of individuals and collective suspicion of patients’ motives. Arild Knutsen, a leader of the Norwegian Association for Human Drug Policies (FHN), expressed his reaction to the events in Bergen in 2007:

Notification of the collective transfer created great unrest. Many patients feared that their body

would not manage the transition. The fact that everybody had to switch their medication was also perceived as a collective punishment. A woman reported that she felt treated like a drug addict again, many years after she could tie her identity to such a category.

Therefore, the forced transfer as a “mark on one’s biography” (Radley, 1996, p. 132) had implications for patients’ evaluation of the therapy, the healthcare provided, and of themselves. To patients, the transfer represented disrespect of their treatment, their experiences, and their individuality. It also made them question the sincerity of clinical recommendations and the validity of the laws expressed in the Patients’ Rights Act, which guarantees the right to individualised treatment, informed consent, and patient involvement. The forced transfers shaped local social meanings attached to this particular medication, which significantly differed from those attached to methadone and Subutex®.

Against this backdrop, we can better understand that patients harbour negative feelings and reactions against Suboxone®, even if the practice has changed with guidelines emphasising patients’ right to choose a modality. Anne, Siv, Leah, and others associated Suboxone® with anxieties and lost autonomy. The medication bore symbolic and clinico-political meanings, which had real-life consequences for patients and for professionals who struggled with patients’ resistance (Bartoszko, 2018a). I often heard patients say, “Remember what they did to us in Bergen”. The embodied social memory of those events is more powerful than any current claims from the medical community and constitutes a major part of this medication’s effect. Through this particularly disempowering politico-pharmaceutical intervention, the new capacities of Suboxone® were constructed.

Polluting pharmaceutical atmospheres

Through the rhetoric and argumentations cited above, we can observe how patients and

medical experts alike ascribed new meanings to the materiality of Suboxone® and actively contributed to a different understanding of pharmaceutical work, thus producing different types of buprenorphine. Both patients and professionals found various implications for the side effects of Suboxone®. They sought to understand these in different, often inconsistent ways. The experienced and ascribed side effects harboured potent ideas that symbolise the role substitution medication played for the OST patients. The medical community on the other hand, operated with homogenising narratives of buprenorphine(s) and the effects, focusing predominantly on pharmacological properties. By placing Suboxone® in the network of its symbolic meanings, I have illustrated that the significant focus on the side effects of Suboxone® in Norway was a result of individual idiosyncratic experiences, social history of treatment and medication, the internalised notion of choice possibilities, and user involvement expressed by the law and medical guidelines.

In 2011, Campbell asked:

What discourses, policies and practices will the globalization of buprenorphine—either its “pure” form, Subutex, or mixed with naloxone, Suboxone—yield in terms of new subject formations, and how will they be positioned in relation to “addiction”? What new addict subject formations will be produced through interaction with international harm reduction movements, human rights discourse or the pharmaceutical industry? (Campbell, 2011, p. 134)

Outlining the local receptions and perceptions of buprenorphine(s), I have posited that in Norway this pharmaceutical innovation had not only clinical, but also social and political consequences shaping new pharmaceutical subjectivities. Contrary to Harris’ (2015) findings, patients’ experiences with this treatment modality were reflected and affected by the discourse of compulsion and disenfranchisement instead of freedom and normalcy. In Norway, the way buprenorphine-naloxone was

introduced altered the therapeutic atmosphere of OST, leaving deep traces in the patients' bodies. It fostered a sense of disrespect, failure, and mistrust in patients. The involuntary change of treatment modalities became significant in the history of the Norwegian OST, which profoundly changed buprenorphine's future and its role in the treatment landscape. It also weakened and at the same time, strengthened patients' self-perceptions and self-positioning as equal citizens having the right to individual treatment.

Acknowledgment

I thank the anonymous reviewers for considerate reading and suggestions. I thank Ida Hydle and Tine Færch for comments on drafts of this article. I am grateful to Shana Harris and Todd Meyers for sharing their insights and encouragement when I found buprenorphine's reception in Norway intriguing at the early stage of the project.

Declaration of conflicting interests

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

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Aleksandra Bartoszko  <https://orcid.org/0000-0002-2919-545X>

Notes

1. Despite an initial acknowledgement of the difference between buprenorphine with and without naloxone, Harris is not explicit about the distinction in her analysis, writing about "buprenorphine" in general. In this article, unless otherwise specified, "buprenorphine" encompasses both buprenorphine products, with and without naloxone. For the sake of empirical and analytic clarity, I use specific brand names (Subutex[®] and Suboxone[®]) when appropriate.
2. Subsequently in this article, I do not include the names of generic equivalents of the drugs or various producers for simplification purposes and also because my interlocutors rarely referred to them. Even patients using cheaper generic versions (such as Buprenorphine Orifarm or Buprenorphine Sandoz) often referred to it as Subutex[®]; during general discussions as well as in OST annual reports, this brand name was used most frequently. The same was true for Suboxone[®], which was the only buprenorphine-naloxone product in Norway at the time of my fieldwork.
3. This recommendation indicates that the Directorate of Health regard the events of 2007 (analysed in this article) and the subsequent protests as significant.
4. All names have been changed to ensure confidentiality.

References

- Adler, S. R. (2011). *Sleep paralysis: Night-mares, nocebos, and the mind-body connection*. New Brunswick, NJ: Rutgers University Press.
- Anderson, B. (2009). Affective atmospheres. *Emotion, Space and Society*, 2(2), 77–81. doi:10.1016/j.emospa.2009.08.005
- Barsky, A. J., Saintfort, R., Rogers, M. P., & Borus, J. F. (2002). Nonspecific medication side effects and the nocebo phenomenon. *JAMA*, 287(5), 622–627. doi:10.1001/jama.287.5.622
- Bartoszko, A. (2018a). *The pharmaceutical other: Negotiating drugs, rights, and lives in substitution treatment of heroin addiction in Norway* (Unpublished doctoral dissertation). OsloMet, Oslo Metropolitan University, Oslo, Norway.
- Bartoszko, A. (2018b). The lethal burden of survival: Making new subjects at risk and the paradoxes of opioid substitution treatment in Norway. *Contemporary Drug Problems*. Advance online publication. doi:10.1177/0091450918784953
- Böhme, G. (1993). Atmosphere as the fundamental concept of a new aesthetics. *Thesis Eleven*, 36(1), 113–126. doi:10.1177/072551369303600107
- Bourgeois, P. (2000). Disciplining addictions: The bio-politics of methadone and heroin in the United States. *Culture, Medicine and Psychiatry*, 24(2), 165–195.

- Campbell, N. D. (2011). From “magic bullets” to medical maintenance: The changing meanings of medical approaches to drug use in US drug policy. In S. Fraser & D. Moore (Eds.), *The drug effect: Health, crime and society* (pp. 122–136). Cambridge, UK: Cambridge University Press.
- Campbell, N. D., & Lovell, A. M. (2012). The history of the development of buprenorphine as an addiction therapeutic. *Annals of the New York Academy of Sciences*, 1248, 124–139. doi:10.1111/j.1749-6632.2011.06352.x
- Connerton, P. (1989). *How societies remember*. Cambridge, UK: Cambridge University Press.
- Dole, V. P., & Nyswander, M. E. (1965). A medical treatment for diacetylmorphine (heroin) addiction: A clinical trial with methadone hydrochloride. *JAMA*, 193, 646–650.
- Dole, V. P., & Nyswander, M. E. (1967). Heroin addiction: A metabolic disease. *Archives of Internal Medicine*, 120(1), 19–24. doi:10.1001/archinte.1967.00300010021004
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic fieldnotes*. Chicago, IL: University of Chicago Press.
- Etkin, N. L. (1992). “Side effects”: Cultural constructions and reinterpretations of Western pharmaceuticals. *Medical Anthropology Quarterly*, 6(2), 99–113. doi:10.1525/maq.1992.6.2.02a00010
- Frantzsen, E. (2001). *Metadonmakt: møte mellom narkotikabrukere og norsk metadonpolitikk [Methadone power: Encounter between drug users and Norwegian methadone policy]*. Oslo, Norway: Universitetsforlaget.
- Geertz, C. (1995). *After the fact: Two countries, four decades, one anthropologist*. Cambridge, MA: Harvard University Press.
- Gjersing, L., Waal, H., Røislien, J., Gossop, M., & Clausen, T. (2011). Variations in treatment organisation, practices and outcomes within the Norwegian Opioid Maintenance Treatment Programme. *Norsk epidemiologi*, 21(1), 113–118.
- Gomart, E. (2002). Methadone: Six effects in search of a substance. *Social Studies of Science*, 32(1), 93–135. doi:10.1177/0306312702032001005
- Hahn, R. A., & Kleinman, A. (1983). Belief as pathogen, belief as medicine: “Voodoo death” and the “placebo phenomenon” in anthropological perspective. *Medical Anthropology Quarterly*, 14(4), 3–19. doi:10.1525/maq.1983.14.4.02a00030
- Haller, J. S. (2014). *Shadow medicine: The placebo in conventional and alternative therapies*. New York, NY: Columbia University Press.
- Hansen, H., & Roberts, S. K. (2012). Two tiers of biomedicalization: Methadone, buprenorphine and the racial politics of addiction treatment. In J. C. Netherland (Ed.), *Critical perspectives on addiction* (pp. 79–102). Bingley, UK: Emerald Group Publishing.
- Harris, S. (2015). To be free and normal: Addiction, governance, and the therapeutics of buprenorphine. *Medical Anthropology Quarterly*, 29(4), 512–530. doi:10.1111/maq.12223
- Hedrich, D., Alves, P., Farrell, M., Stöver, H., Møller, L., & Mayet, S. (2012). The effectiveness of opioid maintenance treatment in prison settings: A systematic review. *Addiction*, 107(3), 501–517. doi:10.1111/j.1360-0443.2011.03676.x
- Helsedirektoratet. (2010). *Nasjonal retningslinje for legemiddelassistert rehabilitering ved opioidavhengighet [National OST guidelines]*. Oslo, Norway: Helsedirektoratet.
- Houborg, E. (2012). The political pharmacology of methadone and heroin in Danish drug policy. *Contemporary Drug Problems*, 39(1), 155–192. doi:10.1177/009145091203900108
- Jenkins, J. H. (2015). *Extraordinary conditions: Culture and experience in mental illness*. Berkeley, CA: University of California Press.
- Keane, H. (2013). Categorising methadone: Addiction and analgesia. *The International Journal on Drug Policy*, 24(6), e18–e24. doi:10.1016/j.drugpo.2013.05.007
- Lawson, W. B. (2008). Identifying inter-ethnic variations in psychotropic response in African American and other ethnic minorities. In H. N. Chee, K.-M. Lin, B. S. Singh, & E. Chiu (Eds.), *Ethnopsychopharmacology: Advances in current practice* (pp. 111–117). Cambridge, UK: Cambridge University Press.
- Ling, W., Jacobs, P., Hillhouse, M., Hasson, A., Thomas, C., Freese, T., . . . Tai, B. (2010). From research to the real world: Buprenorphine in the

- decade of the clinical trials network. *Journal of Substance Abuse Treatment*, 38(Suppl 1), 53–60. doi:10.1016/j.jsat.2010.01.009
- Lock, M., & Kaufert, P. (2001). Menopause, local biologies, and cultures of aging. *American Journal of Human Biology*, 13(4), 494–504. doi:10.1002/ajhb.1081
- Lovell, A. M. (2006). Addiction markets: The case of high-dose buprenorphine in France. In A. Petryna, A. Lakoff, & A. Kleinman (Eds.), *Global pharmaceuticals: Ethics, markets, practices* (pp. 136–170). Durham, NC: Duke University Press.
- Malhotra, A. K. (2001). Pharmacogenomics and schizophrenia: Clinical implications. *The Pharmacogenomics Journal*, 1(2), 109–114. doi:10.1038/sj.tpj.6500038
- Meyers, T. (2013). *The clinic and elsewhere: Addiction, adolescents, and the afterlife of therapy*. Seattle, WA: University of Washington Press.
- Meyers, T. (2014). Promise and deceit: Pharmakos, drug replacement therapy, and the perils of experience. *Culture, Medicine, and Psychiatry*, 38(2), 182–196. doi:10.1007/s11013-014-9376-9
- Moerman, D. E. (1983). General medical effectiveness and human biology: Placebo effects in the treatment of ulcer disease. *Medical Anthropology Quarterly*, 14(4), 3–16. doi:10.1525/maq.1983.14.4.02a00020
- Moerman, D. E. (2002). *Meaning, medicine, and the "placebo effect"*. Cambridge, UK: Cambridge University Press.
- Morland, J. (2007a, October 22). Feilgrep å fjerne Subutex [Mistake to remove Subutex]. NRK. Retrieved from <https://www.nrk.no/hordaland/feilgrep-a-fjerne-subutex-1.3808586>
- Morland, J. (2007b, October 26). Krever klarere regler for suboxone [Demand clearer rules for Suboxone]. NRK. Retrieved from <https://www.nrk.no/hordaland/krever-klarere-regler-for-suboxone-1.3867213>
- Muller, A. E., Bjørnstad, R., & Clausen, T. (2018). Dissatisfaction with opioid maintenance treatment partly explains reported side effects of medications. *Drug and Alcohol Dependence*, 187, 22–28. doi:<https://doi.org/10.1016/j.drugalcdep.2018.02.018>
- Netherland, J. C. (2011). *Becoming normal: The social construction of buprenorphine and new attempts to medicalize addiction* (Doctoral dissertation). Retrieved from https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=2958&context=gc_etds
- Ninnemann, K. (2012). Variability in the efficacy of psychopharmaceuticals: Contributions from pharmacogenomics, ethnopsychopharmacology, and psychological and psychiatric anthropologies. *Culture, Medicine & Psychiatry*, 36(1), 10–25. doi:10.1007/s11013-011-9242-y
- Radley, A. (1996). The critical moment: Time, information and medical expertise in the experience of patients receiving coronary bypass surgery. In S. J. Williams & M. Calnan (Eds.), *Modern medicine: lay perspective and experiences* (pp. xv+270). London, UK: UCL Press.
- Riksheim, M., Gossop, M., & Clausen, T. (2014). From methadone to buprenorphine: Changes during a 10-year period within a national opioid maintenance treatment programme. *Journal of Substance Abuse Treatment*, 46(3), 291–294. doi:10.1016/j.jsat.2013.10.006
- Sanabria, E. (2014). “The same thing in a different box”: Similarity and difference in pharmaceutical sex hormone consumption and marketing. *Medical Anthropology Quarterly*, 28(4), 537–555. doi:10.1111/maq.12123
- Sanden, C. H. (2007, October 26). Reagerer på Suboxone-tvang [Reacting to compulsory transfer to Suboxone]. NRK. Retrieved from <https://www.nrk.no/hordaland/reagerer-pa-suboxone-tvang-1.3857985>
- Saris, A. J. (2008). An uncertain dominion: Irish psychiatry, methadone, and the treatment of opiate abuse. *Culture, Medicine, and Psychiatry*, 32(2), 259–277. doi:10.1007/s11013-008-9089-z
- Schlosser, A. V., & Ninnemann, K. (2012). Introduction to special section: The anthropology of psychopharmaceuticals: Cultural and pharmacological efficacies in context. *Culture, Medicine, and Psychiatry*, 36(1), 2–9. doi:10.1007/s11013-012-9249-z
- Skeie, I., Brekke, M., Gossop, M., Lindbaek, M., Reinertsen, E., Thoresen, M., & Waal, H. (2011). Changes in somatic disease incidents

- during opioid maintenance treatment: Results from a Norwegian cohort study. *BMJ Open*, 1(1), e000130. doi:10.1136/bmjopen-2011-000130
- Skjølås, J. E. (2016, November). *Kliniske erfaringer med Suboxone [Clinical experiences with Suboxone]*. Paper presented by Siri Getz at national meeting for OST leaders, Oslo, Norway.
- Skotland, S. (2007). Blir (p)syke av Suboxone? [Getting sick(o) av Suboxone?] *Farmatid*. Retrieved from <http://www.farmatid.no/artikler/blir-psyke-av-suboxone>
- Skretting, A., & Dammen, C. (2004). From methadone to medicine-assisted rehabilitation. *Nordisk Alkohol- & Narkotikatidskrift*, 21(Eng suppl), 162–166.
- Skretting, A., & Rosenqvist, P. (2010). Shifting focus in substitution treatment in the Nordic countries. *Nordic Studies on Alcohol and Drugs*, 27(6), 581–598. doi:10.1177/145507251002700604
- Sontag, D. (2013, November 16). Addiction treatment with a dark side. *The New York Times*. Retrieved from <http://www.nytimes.com/2013/11/17/health/in-demand-in-clinics-and-on-the-street-bu-pe-can-be-savior-or-menace.html>
- Sosial- og helsedirektoratet (Directorate for Health and Social Affairs). (2008). *Vedrørende valg av buprenorfinpreparat i Legemiddelassistert rehabilitering LAR [Regarding the choice of buprenorphine preparation in opioid substitution treatment]*. Retrieved from <https://www.helsetilsynet.no/regelverk/tolkningsuttalelser/pasient-og-brukerrettigheter/Vedrørende-valg-av-buprenorfinpreparat-i-Legemiddelassistert-rehabilitering-LAR/>
- Van der Geest, S., & Hardon, A. (2006). Social and cultural efficacies of medicines: Complications for antiretroviral therapy. *Journal of Ethnobiology and Ethnomedicine*, 2(1), 1–5. doi:10.1186/1746-4269-2-48
- Van der Geest, S., & Whyte, S. R. (1989). The charm of medicines: Metaphors and metonyms. *Medical Anthropology Quarterly*, 3(4), 345–367. doi:10.1525/maq.1989.3.4.02a00030
- Waal, H., Bussesund, K., Clausen, T., Lillevold, P. H., & Skeie, I. (2018). *LAR 20 år. Status, vurderinger og perspektiver. Statusrapport 2017 [OST 20 years: Status, evaluations and perspectives: Status report 2017]*. SERAF Rapport 3/2018. Oslo, Norway: SERAF.
- Waal, H., Bussesund, K., Clausen, T., Skeie, I., Håseth, A., & Lillevold, P. H. (2016). *Mot grensene for vekst og nytte? Statusrapport 2015 [Meeting limits of growth and usefulness? Status report 2015]*. SERAF Rapport 1/2016. Oslo, Norway: SERAF.
- Waal, H., Bussesund, K., Clausen, T., Skeie, I., Håseth, A., & Lillevold, P. H. (2017). *Er kvalitetsforbedring nå viktigere enn kapasitetsutvikling? Statusrapport 2016 [Is quality improvement now more important than capacity development? Status report 2016]*. SERAF Rapport 2/2017. Oslo, Norway: SERAF.
- Zinberg, N. E. (1984). *Drug, set, and setting: the basis for controlled intoxicant use*. New Haven: Yale University Press.