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Chapter 8

Gender Representations in Online Modafinil Markets

Jennifer Fleetwood and Caroline Chatwin

Abstract

This chapter examines representations of gender in online modafinil markets. While gender has often been absent from scholarship on online drug markets, our analysis demonstrates the ubiquity of gender in representations of modafinil users and sellers. The analysis draws on visual images, blogs, and marketing emails relating to three websites selling modafinil, discussed pseudonymously. We describe the range of ways that notions of gender are represented in advertising. Although women represent around 40% of that buying modafinil online, websites and communications tended not to feature women. Although sexist stereotypes of women were rarely present (in contrast to direct-to-consumer pharmaceutical advertising), the ways that modafinil was imagined tended to focus narrowly on corporate spheres of work and productivity. We contrast this narrow imaginary with female journalists' own accounts of using modafinil to manage illness and enhance creativity. Thus, we conclude that the ways that modafinil has been imagined reflects working assumptions as to who is considered the 'normal' participant in online modafinil markets.

Keywords: Modafinil; advertising; gender; women; smart drugs; cognitive enhancers

Introduction

DarkMarket was notable for its claim to be the first female-run cryptomarket (Digital Shadows, 2019). Their female-led brand was emphasised in blogposts,

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visual imagery, and a ban on trading in weapons and images of child abuse. When DarkMarket was taken down in January 2021 as part of an international investigation, it was reported that its founder and administrator was in fact an Australian man (Caesar, 2021). Nevertheless, the emergence of an apparently ‘female-run’ cryptomarket has important implications for discussions about gender in online drug markets. A cryptomarket run by women should not necessarily be surprising given women’s established involvement in drug markets, including at the very top levels (Carey, 2014; Fleetwood and Leban, 2023). The *novelty* of DarkMarket’s claim to be led by women, however, reveals the widely held assumption that online drug markets are run, and mostly populated, by men.

The emergence of DarkMarket poses interesting questions about representations of gender in online drug markets. Was the claim to be ‘female run’ merely about creating a distinctive brand? Or perhaps an attempt to create an aura of safety and trustworthiness online? We can certainly see the benefit in a context where cryptomarkets are plagued by exit scams. Or perhaps this could be a strategy to attempt to attract women as an ‘untapped market’? These questions are hard to answer given how little is known about gender and women in online drug markets (Fleetwood et al., 2020).

In this chapter, we undertake a gendered analysis exploring the marketisation of the prescription-only medicine – modafinil, on the clearnet – that is, the Internet commonly accessed by the general public through search engines such as Google (Dursun et al., 2019, p. 699). In line with the wider themes of this book, we have chosen clearnet modafinil markets as relatively ‘new’, and in our analysis, we focus on the idea of continuity or change in the way gender representations are performed within and around these markets. Furthermore, women also comprise a significant portion of consumers of modafinil (Maier et al., 2018), making it an appropriate case study.

In this chapter, we argue that gender representations are ubiquitous to text and images which proliferate in clearnet drug markets advertising modafinil. While, we found a surprising lack of sexist stereotypes, online representations tend to replicate long-standing notions that drug cultures and drug markets are populated, and dominated, by men. This assumption limits the ways in which modafinil use is imagined in online advertising. We contrast this with women’s own accounts of using modafinil, which display a much broader imaginary.

The chapter is structured as follows: First, we outline why modafinil advertising makes for an important case study into gendered representations online. Next, we overview research on gender in pharmaceutical advertising. Researchers report widespread use of sexist stereotypes and bias. Contemporary research and theory propose the concept of ‘material-discursive entanglements’ (Johnson, 2017a, 2017b), that is, the two-way relationships between gender and drugs. After that, we examine how modafinil has been depicted in the media, contrasting academic scholarship with journalistic accounts by women. In the second half, we briefly outline our methodology before presenting our analysis of gendered representations in online modafinil websites.

Modafinil and Drug Markets

Modafinil is a wakefulness-promoting drug, legally prescribed in the UK, the USA, and mainland Europe for narcolepsy and sleep disorders, including shift work (Billiard and Lubin, 2015; Dursun et al., 2019). It is relatively new, first synthesised in the 1970s in France as an alternative to amphetamine-based stimulants (Rambert et al., 2006). It was licenced in France in 1992, and then in the USA and UK in 1998 (Billiard and Lubin, 2015). It is commonly used off-label for an array of perceived benefits, including improved focus, concentration, and cognitive enhancement. Modafinil has emerged as one of the most widely available (Hockenhuil et al., 2020) and widely used (Dursun et al., 2019, p. 699) cognitive enhancers, especially by higher education students (McDermott et al., 2020). Off-label use appears to be increasing (Maier et al., 2018, p. 109).

Modafinil makes for an interesting case study for several other reasons. Women's roles as consumers, purchasers, and sellers in drug markets are often downplayed and assumed to be lesser than men's (Fleetwood et al., 2020). This is borne out in relation to online drug markets, with Global Drug Survey figures reporting that 87% of those who report buying drugs on cryptomarkets were men (Winstock et al., 2016). Yet women are major consumers of modafinil online. Global Drug Survey figures suggest that women comprise around 40% of those reporting buying cognitive enhancers online (Maier et al., 2018, p. 106). This relatively large share of the market makes modafinil an interesting case study for gender analysis.

While modafinil is one of the most widely available prescription medicines sold on the darknet (Cunliffe et al., 2019), it is also widely sold through the clearnet. Horton (2015) estimates that 27,500–40,000 clearnet online pharmacies are in operation at any one time. The clearnet is emerging as a significant site of drug sales (McCulloch and Furlong, 2019), including both open-net webpages, encrypted messaging, and social media apps (Bakken and Demant, 2019; Coomber et al., 2023, Chapter 2; Demant et al., 2020; Moyle et al., 2019). An increasing number of websites illegally sell drugs such as cannabis and magic mushrooms, as well as pharmaceuticals such as sleeping tablets and painkillers (Dursun et al., 2019; Koenraad and van de Ven, 2018; Walsh, 2011). Women comprise a significant proportion of those buying prescription and lifestyle drugs on the clearnet (Fleetwood et al., 2020, p. 459). Yet clearnet markets are too often overlooked by researchers, perhaps reflecting sexist assumptions about darknet markets being more 'serious' or significant (Fleetwood et al., 2020).

Online drug markets in general generate copious representations of drugs, buyers, and sellers, including a lot of text and images. This is a major development in contrast with traditional 'street-level' drug markets (i.e. sales to consumers) which have historically relied on degrees of invisibility to function. Yet even in-person selling to consumers demands degrees of visibility: ethnographies of open drug markets describe mostly young men standing at known spots undertaking hand-to-hand drug sales (Akhtar and South, 2000; Bourgois, 1995; Pearson, 2001; Young, 1971). Reputation might be cultivated through word of mouth. In a rare exception, in NYC between the 1970s and 1990s, heroin was sold in branded bags (Wendel and Curtis, 2000), and both brand names and imagery were undergirded

by ‘tropes of machismo, flirtation with death and violence’ (Wendel and Curtis, 2000, p. 241). In contrast to on-street drug markets, women have been described as dealing discretely, often in private settings, relying on word of mouth (Dunlap et al., 1994; Fleetwood, 2014).

Drug sellers have always trodden a thin line between visibility and invisibility. Some contemporary drug markets have embraced digital and online forms of visibility, generating an abundance of text and imagery to attract customers. So far little scholarly attention has examined the imagery and representations employed in online drug markets (Hämäläinen, 2019). Here, we consider gendered representations.

Gender in Pharmaceutical Drug Advertising

Research on direct-to-customer (DTC) advertising of legal pharmaceuticals theorises gendered representations. This scholarship mostly emerges from the USA and Scandinavia where DTC advertising of prescription-only drugs is legal. Mosher’s (1976) early research noted the rank of sexism in pharmaceutical advertising in the USA in which women were represented in highly stereotypical tropes, such as the ‘overwrought mother; the depressed housewife; the chronic complainer; the dejected housewife’, while men were described as stoic and rational (Mosher, 1976, p. 73). Sexist stereotypes arguably contributed to overprescribing – at the time, women in the USA were prescribed pharmaceuticals 50% more than men (Mosher, 1976, p. 73). In contrast, quantitative research evidences women’s under-representation in advertising for cardio-vascular medications (Ahmed et al., 2004; Riska and Heikell, 2007), while advertising for anti-depressants tends to over-represent women (Lövdahl et al., 1999). These biases reflect, and reinforce, offline biases in medical treatment, often to women’s detriment.

Krupka and Vener (1992) argued that more gender-neutral advertising was apparent by the 1980s; however, gender stereotypes remain a long-standing feature of pharmaceutical advertising (Fisher et al., 2010; Leppard et al., 1993). Advertising for sex-specific medications is replete with normative gender ideologies. Whittacker’s (1998) analysis of pharmaceutical advertising for hormone replacement drugs found that visual narratives reveal ‘traditional patriarchal definitions [...] hegemonic viewpoints that limit the changes that women desire for themselves and their lived subjectivities’ (p. 85). Normal bodily functions – such as menopause and menstruation – are problematised and ‘biomedicalised’ in the process of marketing pharmaceuticals (Mamo and Fosket, 2009; Whittacker, 1998). Whittacker points out a central irony: despite hormone replacement therapy (HRT) being *for* women, advertising reflects the male gaze rather than the female experience.

Advertising offers an idealised ‘slice of life’ (Thomas and Treiber, 2000, p. 358), including notions of health (Asberg and Johnson, 2009). Such representations reflect ‘social and cultural expectations of how the [healthy] body *should* function’ (Coveney et al., 2009, p. 488). Notions of the healthy body overlap with ideas about normal or natural gender roles, expressions, and identities. Asberg and Johnson (2009) examine Viagra advertising in Sweden through the construction

of the ‘Viagra man’: an outdoorsy, rugged everyman. Swedish Viagra advertising is replete with wilderness settings emphasising how Viagra *returns* men to their natural state of virility. This ‘return’ is just one conceptual metaphor common to pharmaceutical advertising. Marjorie Delbaere (2013) finds that medications are often conceptualised with reference to magical or mystical metaphors: giving special powers, offering magical solutions to difficult problems, or (as above) returning one to one’s natural state (p. 23). Furthermore, medicines may also be personified or given human characteristics – as helpers, deliverers, or heroes (Delbaere, 2013, p. 23).

Contemporary feminist science and technology scholarship moves beyond questions of bias and gender stereotype to consider the material-discursive entanglements between gender and drugs (Johnson, 2017b, p. 213); that is, the ways that ‘pharmaceuticals can produce sex/gender and be sexed/gendered in different contexts’ (Johnson, 2017b, p. 211). This novel approach considers (i) how gendered ideologies shape the ways that drugs are used, including shaping notions of acceptable or appropriate uses of those substances, and (ii) how pharmaceuticals may enable the performance of particular notions of gender; for example, hormone therapies enable trans individuals to present as their chosen gender, or Viagra may enable men to meet gendered expectations about male sexuality.

From this perspective, pharmaceutical advertising ‘prescribes’ particular subjectivities, or ways of being (Johnson and Asberg, 2017, p. 88). Pharmaceutical product advertises not only construct illness and health but also establish the pharmaceutical product as essential for ‘normal’, healthy identities and relationships. These subjectivities are culture bound, and they reflect (and perhaps even create) expectations about gender, age, class, sexuality, able-bodied-ness, and so on.

This calls to mind Fiona Measham’s theorisation of ‘doing drugs, doing gender’ (2002). She argues that consuming drugs enabled women to enact femininity in a variety of ways across different contexts – as ‘club babes’, for example. Gendered ideas of women as sociable and ‘bubbly’ made drug taking make sense, *and* taking drugs enabled the performance of these gendered ideas. Thus, neither gender – nor the effects of drugs – are ‘settled’, and the entanglements between drugs/pharmaceuticals are open-ended. Modafinil is especially interesting in this respect – unlike Viagra or HRT, it is not immediately tied to the sexed body. It is beyond the scope of this chapter to explore the kinds of gendered subjectivities modafinil might enable. As such, we particularly examine the ways that gender ideology shapes the ways that modafinil use is imagined in advertising.

Media Coverage of Modafinil

Two studies have analysed press coverage of modafinil in the UK between 1998 (when it was first licenced) and 2006 (Coveney et al., 2009; Williams et al., 2008). These studies helpfully outline the main discourses publicly circulating about modafinil which form the cultural backdrop against which current modafinil advertising is posed. Media are also a key shaper of which medications become known and promoted to the general public (Asberg and Johnson, 2009, p. 148; Williams et al., 2008, p. 851).

Despite being licenced only for the treatment of narcolepsy, Williams et al. (2008) found that early coverage of modafinil reported excitedly on its potential for enhancement, as a 'wonder drug'. For example, *The Independent* suggested modafinil 'could provide the pharmacological equivalent of the electric light bulb' (cited by Williams et al., 2008, p. 843). Following this theme, subsequent articles analysed by Williams et al. (2008) covered medical trials on the usefulness of modafinil for a wide range of conditions, including Parkinson's, ADHD, fatigue relating to shift work, and even general sleepiness. Early enthusiasm for modafinil, however, was soon tempered by concerns of illegitimate or unfair use by physically well people for enhancement so-called 'lifestyle' drug.

Coveney et al. (2009) also focused on the construction of legitimate and illegitimate uses of modafinil by the press. The metaphor of war (combating or fighting sleepiness) legitimated use whether the 'war' was against narcolepsy or other illness or social conditions, including military contexts. Second, the commodity metaphor framed sleep as a consumer good; using modafinil enables the acquisition of wakefulness normally earned through sleep. This metaphor was mainly used in relation to occupations, making normative moral arguments about the importance of wakefulness at work. The third metaphorical framing was around competition, which constructed modafinil as a way to 'beat' sleep. Modafinil was described as offering a 'boost' to performance (whether in study, sport, or the workplace). The last frame often described modafinil in negative terms, as giving an 'unfair' advantage. Ultimately, Williams et al. (2008, p. 852) argue that modafinil resonates with the protestant work ethic and contemporary Calvinism – as a drug that promises enhanced productivity and extended periods of work. But instead, we might wonder at the ways that the neoliberal imaginary (McGuigan, 2014), characterised by self-reliance, consumer sovereignty, and productivity, has limited the potential usefulness of modafinil by defining it as a drug relating to individual productivity and work, rather than home and pleasure.

Neither of these studies considers gender in their analysis. Discourses about sleepiness/wakefulness appear relatively gender-neutral: men and women experience narcolepsy in equal measure. Women are much more likely to report sleep problems than men, however (Arber et al., 2009). Work, sport, and competition are arguably underpinned by traditional notions of masculinity in which men are expected to be physically powerful, competitive, and successful at work. By contrast, the feminist scholarship on pharmaceutical advertising reviewed above places gender front and centre.

Noting this absence, we sought out media accounts of modafinil which explicitly engaged with gender, and found a surprising number of articles. Many articles are structured around interviews with users and prominently include the voices and experiences of women as well as men, whether centring on the use of modafinil for studying (Cadwalladr, 2015; Renton, 2016; Whitehouse, 2016) or work (Daly, 2016; Yashawi, 2019). Interestingly, within the tabloid press, there is a tendency to take this further and *frame* stories about modafinil as a women's issue. Take, for example, an article from the *Daily Mail* (Hoyle, 2018) entitled 'Why are so many women taking brain-boosting pills at work and risking their health and sanity?'. Despite the only statistics cited in the article being gender neutral ('as many as one in twelve

adults have taken smart drugs'), the *Mail's* focus remains firmly gendered. While the women interviewed for the article mainly talk about deadlines at university and the need to keep up with their peers at work, the *Mail's* taglines emphasise weight loss and depression – often seen as women's issues.

Articles such as this one call to mind depictions of women drug users from the 1950s and 1960s, popularised in books such as Susann's (1966) *Valley of the Dolls*, experimenting with the use of prescription medicines like Valium and barbiturates to deal with boredom of the daily routine, to lose weight, or to cope with (male) rejection. The traditional media in the UK continue to employ familiar tropes towards women who use drugs, suggesting that women's drug use is especially concerning, and framing women's drug use as the outcome of particular failings or because something is missing in their lives. For example, there has been a plethora of recent articles suggesting that modafinil use may result in birth defects (The Daily Star, 2020) or stop birth control from working (The Sun, 2016) – meaning, of course, that we should be particularly concerned by women who choose to use them. These representations suggest a continuation of traditional stereotypes in the way gender is represented in relation to drug use.

Perhaps more interesting is the surprising prevalence of women's *own* accounts of their modafinil use, which often sit in stark contrast to the tropes described by researchers. As well as echoing early media coverage which described modafinil as a 'wonder drug' (Williams et al., 2008), women's own accounts also emphasise pleasure, creativity, and potential benefits in their home lives – aspects of drug use which often remain overlooked by policy-makers and researchers alike (Moore, 2008). For example, Brigid Delaney (2016) writes in the *Guardian* about her use of modafinil to get a large amount of work done in a short amount of time; novelist M. J. Hyland (2013) explores the key role modafinil played in helping her manage fatigue from multiple sclerosis; and Bianca writes about her 'love affair' with modafinil that began with a need to keep up with the demands of her job in academia but ended in appreciating its more pleasurable aspects throughout her home life and leisure time in a multitude of ways (Bianca, 2018). A more modern take on Susann's *Valley of the Dolls* is provided by Wurtzel's *More, Now, Again* (2003) which echoes the central theme of out-of-control prescription drug use, but this time in relation to the steely minded (and ultimately successful) desire to write a second novel and have fun while doing so.

In terms, then of the way gender is represented *around* online modafinil markets, we already note much interest. Existing studies of modafinil's representation in the media locate it in the work sphere and may be underpinned by notions of normative masculinity. More recent tabloid articles have focused on women's use of modafinil but framed either as something we should be particularly concerned about or as attempts to improve their appearance and/or mental state. Meanwhile, women themselves are increasingly vocal on the issue and their accounts hint at a richer and more varied range of reasons for modafinil use than seen elsewhere.

Now, in the second half of our chapter, we examine gender representations *within* online modafinil markets. In particular, we assess whether the high number of women reporting use in surveys and news media is reflected in modafinil marketing. After a brief discussion of research methods, we offer three illustrative examples of the ways that gender is integral to the representations of drug use,

buyers, and sellers in online modafinil markets. These are not intended as a representative, but rather demonstrate how gender ideology is implicated in advertising modafinil to consumers.

Methodological Approach

Our analysis explores depictions of drugs, buyers, and sellers in online modafinil markets. We are especially interested in the ways that texts and images suggest who is (or is not) imagined to be important or present. Our interpretive analysis draws on feminist media analysis (Gill, 2007) and feminist analysis of pharmaceutical advertising (Johnson, 2017a).

Our choice of examples reflects different kinds of websites and gendered representations on the clearnet: (i) a popular and still operating e-commerce website specialising in modafinil sales; (ii) ModafinilCat, a popular e-commerce site specialising in modafinil sales which closed in 2016; and (iii) an unregulated online pharmacy specialising in modafinil sales claiming to be based in the UK. Websites were accessed in February 2020 (i.e. before the onset of the COVID-19 pandemic in Europe) and recorded through screen capture. We also relied on data and screenshots from the Internet archiving site Wayback Machine.¹

Our first case study of a fully operating e-commerce site also draws on promotional emails sent to their subscribers over the last two years, as well as public postings on the TrustPilot review site.² Naming and identifying online communities can be detrimental to their owners and members, even where posts have been made available in the public domain (Potter and Chatwin, 2011), and represents a blurring between public and private spaces (Eysenbach and Wyatt, 2002). While we felt it would not be harmful to identify the websites that have closed, we have taken measures to obscure the identity of the currently operating sites.

Our analysis examines how modafinil use, buying, and selling were constructed in online advertising, and in particular how gender was imbricated in these constructions. We were attentive to discourses about the product, buyers, and sellers, as well as about wider society and relationships (Johnson, 2017a; Whittacker, 1998). We were also interested to note the literal sense in which buyers and sellers were presented in images and text and the kind of activities (work, sport, etc.) people are depicted as undertaking while using modafinil. These images legitimate the use of modafinil, arguably in gendered ways. Finally, we were also keen to trace the limits of how modafinil is imagined in online representations, and so we considered the kinds of gendered subjectivities that *could have* been produced in these material-discursive entanglements (Johnson, 2017b, p. 213) between gender and drugs.

Analysis of Modafinil Websites

The modafinil websites we examined had much in common. All function along the same lines as other web-based shops: the buyer simply clicks on the product,

¹Wayback Machine (<https://web.archive.org/>)

²<https://www.trustpilot.com/>

adds it to the basket, and then checks out with payment by credit or debit card and/or Bitcoin. The shopper then receives a confirmation email and sometimes tracking information. Unlike other online shops though, delivery often relies on ‘stealth’ packaging (anonymous packaging with no description of the contents or name of the company to avoid detection by customs or other law enforcement agencies). All websites were selling essentially the same product, and images of packets of modafinil and the brands (Modalert, Provigil, etc.) are virtually uniform. By contrast, webshops selling cannabis or magic mushrooms have extensive descriptions extolling the distinctive qualities of their product. It is also extremely common for websites to reference the relative safety of modafinil, often drawing on mainstream media reports. Yet, there is a surprising variety in the ways that modafinil and its uses are envisioned. We have chosen three examples that illustrate the variety of ways in which gender is employed in online websites.

Current E-commerce Site: Getmoda and Modafinil Mick’s Normative Masculinity

Since 2018, the site we will call ‘GetModa’³ has established itself as a well-known online modafinil vendor. Although their branding makes much of their image as an ‘all-American’ company, they ship from India and Singapore to North America, Europe, and Australia. Our analysis focuses in particular on the online persona, which we have pseudonymously named ‘Modafinil Mick’, who is presented as the outward face of the company. The website promises the ‘Modafinil Mick Guarantee’TM: ‘the most ironclad satisfaction, delivery guarantee the pharmaceutical industry has ever seen’, promising 100% money back if delivery does not arrive within a reasonable amount of time. Modafinil Mick also responds to reviews on TrustPilot, but it is in weekly promotional emails that we can really get to know him. Here, we show that his online persona reflects contemporary American, neoliberal notions of competitive masculinity through which the use of modafinil, and the company itself, are refracted. This kind of masculinity distinguishes this site from its competitors, *but* it also distinguishes him from the kinds of tough, street masculinity typically associated with the drug trade.

Modafinil Mick is a larger-than-life character – he writes with an unspecified US accent (see next quote) and describes himself as from the USA. Mick’s emails are friendly in tone and peppered with wordplay, references to US culture, and his distinctive sense of humour. Here he describes himself, parodying WWE wrestler Ric Flair:

Quick email here today from everybody’s favorite stylin’, profilin’,
limousine riding, jet flying, smart drug slangin’ son of a gun ...
Ole’ Modafinil Mick!

The main purpose of Modafinil Mick’s weekly emails is to direct sales to their website, often by offering discounts or promotional deals in connection to US

³A pseudonym.

holidays such as Labor Day or Father's Day (although notably not Mother's Day). Yet even communiqués about discounts are an opportunity for entertaining repartee and demonstrations of the ways that he is a 'good guy'. At the start of the coronavirus pandemic, he writes to tell customers: 'we went back and forth on whether to do this. Profiting off the crisis isn't our goal here. Trying to avoid those "blood diamond" vibes and karma'. He then offers a 15% discount to enable customers to stock up – 'to be ready for whatever might come'. In a later email, he says:

Due to your continued support ... we've been able to donate tens of thousands of dollars to charities fighting Covid around the world. No matter what happens moving forward with the virus stuff, you've played a part in helping people from Timbuktu to Kalamazoo.

Through these (unsubstantiated) claims to philanthropy and corporate social responsibility, Modafinil Mick aligns himself with legitimate, socially responsible forms of e-commerce. He and his company are the 'good guys', working towards a better society.

Modafinil Mick is an experienced user and arch advocate for modafinil, which he extols at length: 'modafinil provides 12+ hours of that good, good ... that laser like focus and enhanced cognition'. While his emails repeatedly affirm that he is *not* a doctor, he refers to himself as a 'bro-scientist'. His emails sometimes quote from scientific papers, attesting to the wondrous powers of modafinil to enhance cognitive function and productivity, manage depression, and tackle jet lag, for example.

A common theme is how to maximise gains by taking modafinil safely and effectively, including how to combine (or 'stack') with other products. While the theme of an unfair advantage was common in media coverage (Coveney et al., 2009; Williams et al., 2008), Modafinil Mick *promotes* and legitimates the notion of getting an advance over the competition – after all, in business, why would a smart guy *not* want to gain the upper hand? Advice is dished out in a slightly paternalistic tone for the consumption of his (presumably) younger devotees. In an email from early March, he writes to say that he has been experimenting with different modafinil 'stacks': 'there's always ways to up the ante. To get an extra step ahead of the competition'. He recommends taking up to 400 mg of modafinil (double the dose recommended on 'GetModa'), combined with regular meals, three cups of coffee, and nicotine gum. But he warns his acolytes:

This combo is powerful and potent. Almost to a fault Do note, this stack is heavy. Not for beginners in the game. Start off with just some Modafinil and one cup of *café*. Then work your way up to the big leagues.

Thus, *he* has the smarts to work out ways to maximise the effects of modafinil, as well as the physical toughness to handle seemingly large doses of the drug. His status as an 'expert' is built around his persona as a 'smart guy'.

Modafinil Mick occasionally mentions narcolepsy and sleep disorders – the conditions for which modafinil *is* licenced. However, he is mostly focused on modafinil as a nootropic and as a drug of enhancement rather than treatment. While he never specifies any particular kind of work, he is clear that it is a drug for work, and *not* leisure:

Spending time in the gym when Modafinil is flowing through your veins is a waste of time and focus. We don't waste 'Modafinil hours' getting swole in the gym. We use these 10–12+ hours of focus to get shit done from a work standpoint.

The reference to 'getting swole' is an American expression, meaning getting one's muscles pumped up at the gym. The image of swollen muscles calls to mind male bodies, and subtly rejects a particular kind of 'dumb', physical masculinity (as well as femininity). Of course, as an all-American good guy, Modafinil Mick works out, but here he clearly separates leisure time and productivity: modafinil is a drug for work – not leisure. Indeed, he signs off emails with neat phrases such as 'yours in productivity' or 'here's to the grind'. This theme also appears in a weekly email discussing modafinil and sex – the only time in his emails that gendered/sex differences are mentioned (and as could be expected, sex is discussed in hetero-normative ways). He explains that modafinil can 'hurt erection quality' and offers links to websites selling Viagra. However, he also claims that modafinil can enhance sex for women (he gives no scientific evidence to back up his claim, except for anecdotal evidence from his female colleagues).

The only time that Modafinil Mick permits modafinil outside of work is in relation to lockdown:

There's still a whole lot of ways to stay productive in the coming weeks and months, even if life as we knew it changes for the time being Learning a new skill? Tons of free and paid resources online, teaching us everything from coding to knitting to real estate and much more ... We've all got 1–2+ hours a day to study and learn. Poppin' a Modafinil here and there is sure to help you hit that 'exponential curve' in a good way. The world's best damn smart drug is sure to skyrocket your skills.

The emphasis on productivity in all spheres of life – even one's hobbies – reflects an especially US approach to the neoliberal project of the self (McGuigan, 2014). By tapping into widely held cultural values (such as self-determination and entrepreneurship), Modafinil Mick builds a picture of cultural appeal. Modafinil is the best way to become an all-American good guy – just like him.

The larger-than-life persona of Modafinil Mick enables the company GetModa to make claims about modafinil as a legitimate form of cognitive enhancement, as well as making claims about themselves as a legitimate company. The performance of a particular kind of masculinity in his weekly promotional emails distinguishes the brand against competitors, but it also enables them to make a clear

distinction between themselves (as a legitimate business) and other – suspect – websites selling drugs.

If rugged street masculinity underpins traditional drug markets (and recent scholarship debates this, e.g., Jacques and Allen, 2013; Moeller and Sandberg, 2017), then Modafinil Mick represents a different kind of masculinity – he is a good guy and a smart guy rather than a tough guy. After all, toughness has little value online compared to the ‘Modafinil Mick Guarantee’TM. Thus, his masculine presentation distinguishes his site from illegal drug markets – literally offering guarantees of trustworthiness. Furthermore, Modafinil Mick is also a role model for modafinil use. And, as such, the kinds of subjectivities that are discursively made available by modafinil are underpinned by notions of normative masculinity – that is, self-improvement, attachment, and dedication to work. While there may be attempts to acknowledge and include women (knitting!), Modafinil Mick’s correspondence suggests that men – smart guys like himself – are the presumed users of modafinil.

ModafinilCat: Gender-neutral Branding

Our second case study is of a distinctive, early success in the clearnet sale of modafinil. By 2016, ModafinilCat.com (not a pseudonym) had emerged as one of the most well-known sellers of modafinil online.⁴ Despite only operating for around two and a half years (it suddenly shut down in 2016 at the peak of its popularity), ModafinilCat was a well-known and highly reputable seller, attracting considerable acclaim in online discussion forums such as Reddit. And, regarding our particular interest, it is distinctive especially because of its relatively gender-neutral branding. Indeed, a central part of its marketing was its friendly presence, describing themselves as ‘fast and fluffy’.

The ModafinilCat logo (see Fig. 8.1) is a graphic, bright fuchsia cartoon outline of a cat against a dark purple background. Likewise, the logo of the ‘pharmacy’ (Fig. 8.2) is a bright illustration – again the dominant colour is purple. Their main page said: ‘Order like it’s Amazon. Ordering modafinil online has never been a walk in the park but we’re not your everyday Modafinil online pharmacy’. As they state:

We don’t sell Modafinil – we sell a spaceship that brings you closer to your dreams, you just have to put it together by yourself.

While it is very common in pharmaceutical advertising to employ the metaphor of ‘return’ or ‘restoration’ (Delbaere, 2013), the metaphor of modafinil as a ‘spaceship’ is rather more fanciful, but arguably connotes pharmaceutical exploration connected to the ‘cyber-psychonauts’ (O’Brien et al., 2015, p. 219). Like earlier generations of psychonauts, cyber-psychonauts take drugs at home

⁴Google metrics suggest that people were searching from ModafinilCat from around August 2014.



Fig. 8.1. ModafinilCat Logo 1.

(e.g. rather than at raves) to explore their subjective effects (O'Brien et al., 2015). The advent of the Internet made available a wide array of new psychoactive substances (which were legal, for a time) as well as novel forums for learning about and documenting drug use (e.g. Erowid). While the eponymous cat is the most distinctive visual, the bright colour scheme and astronomical metaphors create an overall sense of fun and exploration. ModafinilCat presents much more like a head shop than a pharmacy, emphasising fun over treatment.

ModafinilCat established many elements of good service that are replicated in later websites – refunds for packages that get lost or stuck in customs, rapid dispatch, and customer satisfaction:

ATTENTION: only trust communication from our official domain ModafinilCat.com and from the reddit user 'MoaCat'. Bad people are out to scam you into giving away personal information, please be extra careful ... (=^.^=).



Fig. 8.2 ModafinilCat Logo 2.

While some scholars argue that good service is a novel development in online drug markets (Martin, 2018), scholarship on women in online drug markets has in fact reported women distinguishing themselves in the market with good customer service (Fleetwood, 2014; Grundetjern and Sandberg, 2012).

So far, so corporate. Yet, by drawing on counter-cultural drug imagery, their website conjures elements of subcultural cool. ModafinilCat features no depictions or descriptions of humans; however, their imagery reflects supposedly feminine notions – the colours purple and pink match the cutesy, fluffy cat imagery *and* traditionally feminised notions of service (as opposed to competition). Indeed, it is notable that Afinilexpress (endorsed by the ModafinilCat team as their natural successors, and also closed in 2019) also relied on a sense of playfulness – ‘Choo!!! Choo!!! ... We’re extremely happy to have you on board and looking forward to serving you... Hope you enjoyed riding the Afinil Express!’ ModafinilCats’s animal branding is widely copied, that is, Duck Dose, Fox Dose, Shark Dose, etc. This imagery starkly contrasts with Modafinil Mick’s macho posturing and the kind of branding found in cryptomarket vendor names (Hämäläinen, 2019). Yet, for all of ModafinilCat’s fluffy branding, it’s worth remembering that it was, for a good time, a widely acknowledged market leader, establishing norms around fast and reliable service: as they state, they are ‘like Amazon’.

While ModafinilCat does not depict gender in a literal sense, its lack of macho posturing is essential to its sense of fun and arguably its popularity. The lack of representative images of humans (either in images or text) leaves the appropriate uses of modafinil much more open to interpretation and even experimentation. We cannot draw any conclusions as to who the consumers actually are, and we are definitely not suggesting that women would be seduced by a picture of a cat. However, we do argue that ModafinilCat’s lack of macho posturing and emphasis on fun and exploration are much more open to a wide range of possible uses for, and users of, modafinil.

An Unregulated Online Pharmacy: ModafinilGB and Corporate Anonymity

The final case study is a clearnet website for ‘ModafinilGB’.⁵ They describe themselves as an ‘E-pharmacy’, despite only selling modafinil and its variants (e.g. Modalert, Provigil, Modvigil, Vilafinil, etc.). Unlike other online pharmacies (e.g. UKMeds, Pharmacy 4u) they sell modafinil drugs directly to customers without a prescription. As such, they occupy the same legal space as our previous two case studies.⁶ Although ModafinilGB promises full encryption, payment is taken

⁵A pseudonym.

⁶A discussion of the legal status of online modafinil sellers is beyond the scope of this article as it is rather complex. Modafinil is posted from countries where it can be sold without prescription to countries where it is illegal to sell it without a prescription. However, the question of whether it is illegal to receive it is, at best, a legal grey area. In the UK, modafinil is not currently listed as a controlled substance (Home Office, 2019).

using the standard credit/debit card platform as well as Bitcoin. The site has been functioning since 2013, making it our longest-running example of a modafinil e-commerce site.

Their website has a white/navy blue colour theme common to legitimate online pharmacies. Unlike legitimate pharmacies, however, the banner at the top of the home page features a futuristic illustration of a transparent, androgynous person whose glowing brain can be seen against a background combining a double helix and a circuit board saying: ‘UNLEASH YOUR POTENTIAL! Modafinil—The World’s #1 Smart Drug!’ So this is *like* an e-pharmacy, but one with more futuristic, mind-enhancing medicines. But aside from this slightly fantastical/whimsical imagery, the over-arching ‘theme’ of the website is of legitimacy and normalcy (even to the point of being rather boring).

The online persona of the sellers behind ModafinilGB is characterised by corporate anonymity. Their ‘About us’ page emphasises the quality of their product, the cost-effectiveness of generic modafinil, and the speed and ease of their prescription-free service:

We take great pride in the knowledge that we stock only the most affordably-priced and sought-after generic medications for the treatment of narcolepsy, concentration deficiency, and all related problems experienced by people in the UK and EU Our medications are available to you without a prescription, therefore no need to incur the financial cost and time involved in scheduling a doctor’s appointment, obtaining a prescription, and then going to a physical pharmacy to purchase your goods.

Here, they describe themselves in terms of offering an important service for (smart) people who value their time and money. Besides the text, we can see a bright photograph of a white woman receiving a brown paper-wrapped package, emphasising their status as an absolutely normal kind of online shop.

Reflecting the theme of normality, customers are presented as *hyper-normal* – that is to say, professionally dressed, middle-aged, middle-class, heteronormative men and women. In striking contrast to the bias and stereotypes common to pharmaceutical advertising (Fisher and Ronald, 2010; Mosher, 1976), here we find a careful balancing of the numbers of men and women present. Gender is rather downplayed. There is no bombastic masculinity (as per Modafinil Mick), nor do we find sexist stereotypes.

Customers (or potential customers) are depicted at length on the website’s blog. Between May 2018 and April 2020, their blog was updated on a nearly weekly basis. Hundreds of posts contain images with accompanying short paragraphs. The text is repetitive, echoing the same themes from the website (delivery, service, etc.), extolling the virtues of particular brands of modafinil for promoting wakefulness and productivity. Blog text employs a very wide range of metaphors, as described in prior research on modafinil in the media – for example, ‘beating’ sleepiness (Coveney et al., 2009; Williams et al., 2008). While illness features, *enhancement* is more commonly mentioned: ‘recharge your brain’ and ‘greater work productivity’.

More interesting are the choices of stock images (which are re-used across postings). Blog posts typically figure a single person, aged around 20–40, usually dressed in workwear (a smart shirt and/or blazer). They are almost always shown near to a computer and a hot drink, sometimes with other objects associated with work, such as pens or folders. The mug of coffee or tea recalls the normality of mild stimulants at work, again emphasising the ways that modafinil could become part of a person's working life. Images mostly show people either in a state of happy concentration or unhappy sleepiness. Most are white, with an occasional person of colour included for balance. Gender is understood as a binary: women and men figure in nearly equal portions. All are slim and seem otherwise able-bodied and healthy. They tend to be shown working alone rather than with colleagues or clients. Images give no indication of what kinds of professions are being undertaken – the point is rather to depict a form of 'every-job' undertaken in an anonymous office by an 'any-person'.

Here, gender is part of the background advertising of modafinil, and gendered depictions support the overarching theme of normalcy. The implication here is that modafinil is a normal and natural part of contemporary work. Consumers of modafinil are depicted doing normal kinds of work in normal offices, echoing media depictions of modafinil as an aid for productivity at work (Williams et al., 2008). As Deutsch (2007) notes: 'gender, although always working in the background, varies in salience across different situations' (p. 116). This depiction of the 'any-person' subjugates the importance of gender – and yet, ideas about gender are inevitably present.

Discussion

Gendered representations were ubiquitous to all of the examples we provide, in surprising variation. Such variety recalls gender's mutability (Connell and Pearce, 2014). Despite selling an identical product, modafinil websites draw on different sets of discourses and images to sell their product, and gender is part of these representations. Modafinil Mick reflects the taken-for-granted ubiquity of masculinity in (most) online drug cultures: of course the public face of an online illegal drug company would be a man! And yet, the kind of masculinity on display is culturally and historically specific – good ole' Modafinil Mick is neither Bill Gates nor is he Scarface: he is a good guy, a smart guy who exemplifies the ways that modafinil can be used to get ahead. ModafinilCat cut through the macho posturing common to online drug cultures with its 'fluffy' branding and focus on good service. ModafinilGB, meanwhile, aligns itself with forms of corporate anonymity common online by emphasising the normality of using modafinil to 'beat' sleepiness supported by images of 'normal' men and women at work.

As an aside, drug markets are often associated with particular racial or ethnic groups (Murji, 2007). In our reading, online modafinil markets often rely on whiteness in depictions of drug sellers. GetModa advertises as an all-American brand, and Modafinil Mick is implicitly white; ModafinilGB employs stock images of white people in lab coats to emphasise their branding as a pharmacy. While the meaning of 'race' is nationally distinct, whiteness underpins marketing

depicting modafinil as a legitimate (and safe) way to enhance productivity. A fuller analysis of race is outwith the scope of our analysis. Nonetheless, future research on drug advertising could easily trace the ways that race is part and parcel of online drug markets.

Gender may not always be the most salient aspect of representations of online drug markets, but it is nonetheless ubiquitous, as it is in social life (Connell and Pearce, 2014). And yet, online drug market scholarship has tended to gloss over the significance of gender (Fleetwood et al., 2020). An interesting finding here is that sexist gender stereotyping of women was rather absent, in contrast to legal direct-to-consumer pharmaceutical advertising reviewed above. But this absence arguably reflects a general lack of imagination regarding women as potential consumers of modafinil – surprising, given that 40% of people who report buying cognitive enhancers online are women (Maier et al., 2018).

Gendered representations are not merely decorative but are part and parcel of online drug cultures. They discursively construct how modafinil may be understood and the kinds of uses it may be given. Returning to the notion of material-discursive entanglements (Johnson, 2017b, p. 213), we can note the limited ways that modafinil has been imagined. Within this imaginary, spheres such as home and leisure are absent, as are women, those outside the gender binary, and older people.

Both Modafinil Mick and ModafinilGB locate modafinil as a drug to be consumed alone, at work, exclusively for productivity. As Williams et al. (2008, p. 852) noted, media portrayals of modafinil resonate with the protestant work ethic. Work tends to be associated with notions of men as breadwinners, or even with contemporary, more neoliberal, notions of self-reliance and competition. While women may be nominally included, they are only undertaking the same kinds of corporate ‘every-job’. Teaching or caring do not figure here as the kind of work that could be enhanced. This limited imaginary has implications for the ways that modafinil can be imagined and used, especially for women.

This is somewhat surprising given the media accounts *by* women describing a wide range of benefits from using modafinil. Modafinil is a relatively new drug whose meanings may not yet be settled, and whose uses are yet to be explored. Take, for example, a recent discussion hosted by Massachusetts General Hospital Centre for Women’s Mental Health (2018) in which a female doctor is asked about the potential use of modafinil to combat the fatigue experienced in menopause and responds that ‘menopausal women with fatigue may also benefit from treatment with modafinil’. Yet the use of modafinil for female health issues is not featured in Modafinil Mick’s many blogs or represented in *any* of the sites we explored.

Instead, the gendering of modafinil – as a drug belonging to the competitive corporate sphere – rules out alternative possibilities. Pleasure, leisure, and the domestic sphere are mostly absent in our examples. Perhaps the best way to illustrate this point is to paint an alternative picture – what kinds of uses of modafinil can we re-imagine? Picture the scene: a middle-aged woman is curled up on the sofa, engrossed in a hardback book – she is enjoying her own company and her book, intensely. Her comfort is emphasised by her cosy cardigan and sofa. Or,

in another scene, a young woman plays contentedly with a young toddler – she looks refreshed and not at all sleep-deprived. She and the young child are happily engrossed in a craft project together. Lastly, a short-haired, muscular woman is pictured sailing a boat. She is alone, the sun in her face: she is at the top of her game – physically and mentally.

Our alternative imaginaries forefront women as the ‘normal’ consumers of modafinil. Indeed, it’s easy to imagine how modafinil use could fit into women’s busy and often sleep-deprived lives (Arber et al., 2009), particularly in relation to ‘lean-in’ culture and the desire to ‘have it all’ (Sandberg, 2013b). And yet, the fact that we have to conjure these for ourselves reveals the deeply gendered ways that online drug advertising for modafinil is shaped.

Conclusion

In this chapter, taking clearnet websites selling modafinil as our case study, we have argued that gender representations are pervasive in online drug markets. Clearnet markets generate an array of text and images, rendering gender visible. Our analysis also demonstrates the ongoing significance of *ideas about gender* within online drug markets. Gender does not disappear online but is part and parcel of working assumptions about who is considered to be the normal user, as well as how the drug may be imagined.

Online representations do not tell us who is really present in online drug markets. Nonetheless, they are part of the symbolic environment and online culture of online drug markets, that is, they are part of the material-discursive entanglements between drugs and gender (Johnson, 2017a). The overall picture is one of continuity: as in more traditional drug markets, men rather than women tend to be centred in representations of presumed consumers, buyers, and sellers. We might wonder whether modafinil advertising influences who does or does not buy modafinil online, that is, do expectations about men as the normal consumers of modafinil influence more men than women to use modafinil? The consumer is the ultimate author of meaning (Whittaker, 1998, p. 85), but representations offer the puzzle pieces for imagining how modafinil may be used. Yet, although the kinds of discourses and images in play offer few resources for imagining women as significant players in the consumption of modafinil, women do appear to imagine modafinil use for themselves.