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Introduction

The emergence of drug markets on the darknet since the 'Silk Road' phenomenon has prompted research on the processes involved in dealing specific drugs online (Barratt, 2012; Martin, 2013; Van Buskirk *et al.*, 2014; Aldridge and Décary-Hétu, 2016; Demant *et al.*, 2018). Recent multi-methodological studies have suggested that the Internet – both the dark and surface Web – operates on the transnational level of production and supply as well as locally in end-user markets (Di Nicola *et al.*, 2015; Koenraadt, 2018; Hall and Antonopoulos, 2016). For example, Hall and Antonopoulos (2015, 2016) found that online pharmacies, email/spam advertising, cryptomarkets, and social media markets all play roles in the supply of prescription drugs to UK users. Social media markets often operate without a clear demarcation between sellers and users, and word-of-mouth advertising among virtual friends now seems to be integrated with everyday digital advertising on social media platforms such as Facebook and Twitter. In practice, sellers and buyers make use of social media friend lists, providing information and dealing via the personal messaging system. Furthermore, sellers use closed Facebook groups as a marginally more organized form of dealing.

In their research on surface-Web sellers of image- and performance-enhancing drugs (IPEDs) in the Netherlands and Belgium, van de Ven and Koenraadt (2017) found that online pharmacies play a role in dealing, but a more significant role is played by online suppliers on social media; suppliers invest in the customer relationships that sustain a social supply business model. Echoing these findings, two recent studies in Scandinavia (Demant *et al.*, 2019) and Australia (Moyle *et al.*, 2019) have addressed specific aspects of illicit drug distribution on social media. This research underlines the extent to which social media markets are tightly integrated with other types of drug markets but have had the effect of making these markets more fluid and reactive. Demant *et al*. (2019) also made the distinction between private and public social media markets for illicit drugs. This distinction is similar to that found in end-user drug dealing outside the digital realm, where the social supply of drugs (private) comprises an important part of the drug trade (Coomber, 2010) and where open street markets (public) operate at the other end of the spectrum (Moeller, 2018).

However, so far, little research has focused on the illicit trade in prescription drugs and its operational overlaps with other illicit drug markets online. Notable exceptions include UK-based studies that suggest versatile drug suppliers are involved in the distribution of various IPEDs, illegal drugs, and

prescription drugs as part of multi-drug enterprises, whereas others specialize in the sale of specific prescription drugs only (See Pearson and Hobbs, 2001; Antonopoulos and Hall, 2016; Salinas *et al.*, 2019). Moreover, research conducted in the Netherlands on surface-Web consumers of lifestyle drugs highlights the interconnectedness between different types of drug markets online and the difficulties in 'filtering out' transactions that are distinctly illegal (Koenraadt, 2018). As many researchers have established, the distinction between illicit drugs and prescription drugs has never been static. This discussion has often been placed within science and technology studies-inspired literature (Latour, 2004; Duff, 2012; Demant, 2009; Keane, 2008), where the major finding has been that not only social context (e.g. Zinberg, 1984) but also non-social actors play major parts in producing the concrete enactments on the body that give a drug its functions. The classifications of some drugs (e.g. heroin, cocaine, and amphetamines) have historically moved from prescription drugs to illicit drugs – and some back again (e.g. cannabis, some MDMA, and LSD). Such moments can be perceived within the wider networks of how specific types of pleasures, effects, and social situations historically shift their roles (Despret, 2004). Within the online environment, these more fluid aspects of meanings and functions are further escalated as the interactions become further disconnected from time and place (Latour, 2005). Specifically the global reach of the Internet means it can be difficult to distinguish the legal status of a drug being traded because its legality is spatially contingent on various regulatory frameworks in the global commodity chain.

The aim of this paper is to add to this emerging body of work by exploring the illicit market for prescription drugs on social media in Sweden to highlight the operational overlaps between the market in prescription drugs and other illicit drugs. Sweden is an interesting case to consider because the Swedish government has imposed quite stringent restrictions on the prescription of so-called 'study drugs' such as tramadol, diazepam, and zolpidem (Tjäderborn *et al.*, 2016), which has also restricted the legal supply chain. Yet, in a study based on toxicological analysis of hair samples, high rates of tramadol use were found among young people seeking treatment in the south of Sweden (Olsson *et al.*, 2017). According to Novak *et al*. (2016), after Spain, Sweden's use of sedatives is the highest in Europe, and Cunliffe *et al.* (2019) have identified Sweden as one of the fastest growing darknet markets for prescription drugs.

By analysing advertisements (postings) on Facebook in Sweden and qualitative interviews with Swedish sellers and buyers, this paper will consider how processes in the illicit trade of prescription drugs and other illegal drugs overlap in these online markets by analysing data gathered from observation of the Swedish Facebook drug market and its participants. The findings of the paper are presented in two sections. The first addresses how the drugs are bought and sold, with the emphasis on data from qualitative interviews. The second section outlines a broader perspective of the markets by means of a

descriptive qualitative analysis of the sellers' advertisements on Facebook in combination with data gathered in qualitative interviews with buyers and sellers.

Method

The data for this article consist of four months' online ethnography on drug dealing on Facebook and Instagram in Sweden, combined with semi-structured interviews with market participants. This was part of a larger Nordic project on social media drug dealing conducted between September and December 2017 in Sweden, Denmark, Finland, Iceland, and Norway. Eleven local social science students and one research assistant collected the data by following a standard study protocol. Phase 1 was online ethnography on various social media to discover where the dealing was taking place. This was then supplemented with semi-structured interviews in Phase 2. Sweden was chosen as the focus of this article due to the substantial findings made within both the observations and the interviews. All data were collected with illegal drugs in mind, and prescription drugs became a subtopic within the collected data.

The specific data analysed within this article consist of 184 screenshots of prescription drug sales (=154) and buyer requests (=30), supplemented by 223 Swedish screen shots on illegal drugs to provide a broader framework. In addition, 25 Swedish interviews (n=20 sellers, n=5 buyers) consisting of a minimum of 80% males (n=5 gender unknown) aged from 18-37 with a mean age of 23 (n=7 age unknown). All interviewees were involved in the trade of both prescription and illegal drugs.

The field of social media drug dealing was unexplored as of the beginning of this study, which led to a starting focus on online ethnography in the national language (Hine, 2015; Hine *et al.*, 2017). The data collectors were provided a study protocol. Suggestions to search words, keywords, social media, and various approaches were given as starting points. The protocol also included researcher protection tips and pseudonym profiles given to them only, not interacting within the platforms, and conferring continuously with the project team. They were instructed to lurk only, and only the research assistant and project leader were provided with their real identities. After conducting general drug-related searches on various social media platforms (e.g. Jodel, Grindr, Snapchat, Twitter), Facebook and Instagram were identified as the main openly used platforms and became the main focus. Instagram results consisted of profiles and posts, while Facebook searches mainly led to open drug posts, group invitations in other grey-area groups (e.g. sharing groups and sales groups), and other people's group requests. Groups were either

open or closed/hidden (demanding a request to enter). Entering these groups led to further group invitations.

Interviewees were recruited based on the criterion of participating in social media drug markets, and were interviewed in their local languages. Assistants sent out requests in private messages, usually either via Facebook Messenger or Wickr, an encrypted messaging application often listed in posts or profiles as a secure point of contact. This included information about the study and aim of the interview. All interviewees were given the choice of where to be interviewed. Of the Swedish interviews in this article, one was made face-to-face and the other twenty-four on Wickr. Wickr provided an anonymous context without revealing any physical characteristics. The interviews lasted about 1.5-2 hours in effective interview time, and were semi-structured based on an interview guide providing topics and questions on market characteristics, risk perceptions, motivation, and personal drug business and/or drug use. The only personal questions concerned gender, age, and occupation. The guide had a general focus on illicit drugs, which reflects the self-identification of the sellers and buyers.

Data analysis

The Facebook screenshot data were coded in NVivo using a content analysis strategy (Altheide *et al.*, 2008) based on the following codes: drug types, demographics of the seller, size of group, type of group, and co-occurrence of drugs. These codes provided the basis of a descriptive qualitative analysis. The qualitative interviews were also coded in NVivo and based on the codes of modes of operation, gross purchasing strategies, trust, and size/scale of operation.

Ethics

The Facebook groups were either hidden, closed, or fully open for a limited amount of time until they were hidden by group administrators. Access was achieved by creating profiles with aliases that did not reflect the research, which were necessary to provide security for the student assistants and to avoid the mistrust research faces in this area. All observations were made through 'lurking', which might limit the understanding of the field (Hine, 2008). However, it provided an entry into a field where anonymous avatars are normal practices which, combined with interviews, became highly informative. All screenshots were stored on high-security university servers accessible only by the research team. All identifiable information was removed from the qualitative data before they were documented, and no real images appear in any published form. All interviewees were informed about the study and the main goals of our

research, and they had the choice to opt out whenever they wanted. The Academic Ethics Committee of Copenhagen University approved this study in September 2017. Ethics committees in other Nordic countries were consulted.

Findings

This section is organized to place the initial focus on the modus operandi for drug sellers on social media, then explore the dynamics of the social media markets based on descriptive statistical analyses of the screenshots.

How are drugs illegally bought and sold on social media?

Various social media sites are being used to deal and buy drugs, and the way people use them are reflected in their specific socio-technological composition. For example, media that are open to the public are used alongside others that are private and often used for one-on-one conversations. This became apparent when asking the interviewees why they use specific media platforms. For example, when asked about established Facebook markets, one seller (IP7) mentioned that 'I still use Snapchat a lot but also Messenger, and I buy my products on Flugsvamp 2.0 [darknet]'. In the same manner, one buyer (IP25) revealed that he makes specific use of Instagram: 'Instagram was perfect to establish contacts. One of the people that I came into contact with at that time is now a very good friend of mine and I make the majority of my purchases with him'. Various social media perform different market roles, and it was very common to move between them for different purposes. The general distinction to be made is that between public and private markets. In the more public type of dealing, sellers openly advertise their drugs on social media such as Facebook, Instagram, or other media open to the larger public. On Facebook, the posts are often published in groups for drug dealing or other similar topics, while on Instagram they use their profiles to communicate their activities. On these open platforms the sellers present the drugs for sale, then move on to organize further aspects of the deal via closed channels such as Wickr or Messenger. Almost all further one-to-one contact after the public posts continued via a chosen application. Occasionally, buyers also compose posts requesting various drugs or geographical locations, as one interviewee revealed (IP18):

> Mostly, the posts are 'does anybody sell Subutex, marijuana, brown, amphetamine, etc.'... In some of these groups, there have also been posts like, 'Where in [a location] in the city can one

buy this and that drug?' and like, asking about where it's safest to sell, and people ask for advice and stuff like that.

In the private markets, we find that buyers and sellers have established relationships that are to some extent dependent upon social media. The media were mainly used as a way to communicate directly person to person, a simple method that resembles traditional telephone-based communication in combination with drop-off deliveries (Friis Søgaard *et al.*, 2019). While such ring-and-bring or dial-a-deal services mimic some of the private drug dealing on social media, there is an important distinction to be made that concerns how the connection to the seller is established. This relates to how technology is embedded into the drug deal, or what Powell et al. (2018) have termed a 'technosociability'. This term emphasizes that cultures and practices are inscribed with technology, and that a dial-a-deal service is not just an expansion of a traditional social relation but inscribes technology into the social milieu itself. This clearly exemplified in the quote from the buyer above, in which he makes use of social media (in this case Snapchat) to scan and identify a seller with whom he can make a connection. This process of finding the drugs on social media and then ordering them for pickup at an arranged place is described as a very straightforward process; it is clear that the technology itself becomes transparent for him even though it is central to his actions. This is described by IP2: 'I just find something that's interesting [on social media] and then I send my partner [laughing]'. Public social media sites such as Facebook and Instagram act as catalogues where buyers choose the product and the seller, and then make further contact. The one-on-one contact mostly concerns agreeing on a place to meet to exchange the drugs and money, which is necessary since the social media markets have developed the norm of delivering drugs in person for the exchange of cash. Very occasionally, people pay electronically and receive the drugs by mail.

It is important to note that although public social media marketplaces are by their very nature more open than the private type of markets, they still rely on social media groups that are closed or hidden. This means that although the postings within these groups are public for the group members, a potential buyer or seller will need to identify the groups and obtain access to them to see the advertisements or to use the group for sales. The sellers within the groups find themselves in what has been termed a 'transparency paradox' (Tzanetakis *et al.*, 2016). On one side, they have an interest in a large volume of potential buyers (and, as such, to open the drug trading groups as much as possible to allow potential buyers in). On the other hand, they also want to keep the groups hidden from law enforcement or users who morally denounce drug dealing and are likely to report the misuse of social

media. Balancing their needs and risks has led to a certain routine in running the groups, as this Swedish seller (IP18) describes:

> IP: The group got more established and became more organized with time […]. The different groups have developed different niches. […] They change the Facebook groups from visible *[public or closed]* to secret *[hidden].* They then kick suspicious members out. And it's usually a clique of people that are active in making new groups… [deciding the geographic] location [of sales] and what kind of drugs are allowed.

What we see from the quote is that there is both a formal organization (visibility and openness) but also, more importantly, a constant moderation on the group's content and membership status. The content is administered by one or more people, which is common in any type of online forum (Gillespie, 2018). For users to get access, they must search for groups mentioned in other groups (e.g. groups for legalizing cannabis or local sales groups) or be directed to them from their existing social networks. This means that potential access to groups requires some searching and participation within other groups, given that the invitations to the closed groups and acceptance into the groups are secured.

The Swedish Facebook market for prescription drugs

The public type of dealing on Swedish Facebook appeared to be a visible, public, and rather stable market. Fifty-seven Swedish Facebook groups selling illegal substances were located over the three months of ethnographic work compared to 30 in Iceland, 26 in Denmark, and none in Norway or Finland (Demant and Bakken, 2019). The Swedish groups were normally relatively easy to identify, and the fake profiles used for the research seemed to blend in with the other users' profiles. A seller (IP3) describes his way in as:

> I had no idea these kinds of groups even existed in social media […] My friend had posted his ads earlier and it had worked really well for hen [Swedish gender-neutral personal pronoun]. I felt I could do the same. It was a relatively safe way to reach people, but as more people were invited, it became messier and more unsafe. So I don't post as many ads nowadays.

Another seller helped IP3 into the group from where he could start to advertise his drugs. However, we also see in the quote that this seller is concerned with content and member moderation, because he is sceptical of groups that are too large. Such groups may be presumed unsafe. In a comparative analysis, it

was found that the Swedish groups were significantly smaller than most of the other nations' groups, with most containing between 0-100 (22 groups) and 500-1000 members (24 groups; Demant *et al.*, 2019). Other countries had groups of up to several thousand members. One reason why the Swedish groups were smaller might be their focus on specific geographic areas, often cities – they often included city names in the group titles. The geographical area was then often used as an identifying mark that distinguished a group from others with a brand-like name, such as 'Flea market Stockholm' and 'Flea market Gothenburg'.

In these 57 Swedish Facebook groups, we identified and documented (with screenshots) 407 posts that mentioned drugs as either seller posts or buyer requests (see Figure 1). In these posts, various drugs were mentioned 813 times, often in the same posts. Cannabis was the most-mentioned drug, but prescription drugs came in a close second place, followed by amphetamine, cocaine, and ecstasy.

[Figure 1 HERE]

This shows that prescription drugs form a large part of the Swedish social media market for illicit drugs. However, it should be noted that 'prescription drugs' is a broad category that includes many types of drugs. The other categories of cannabis, amphetamine, cocaine, and ecstasy are specific and do not include such a broad variation of goods. In the interviews, one of the more active sellers (IP18) argued that he sees a change in the mode of selling within the groups, a move into what he describes as 'heavier' drugs 'Prescription medicine, central stimulants, etc. … Cocaine, benzo, medicine, amphetamine, and a lot of research chemicals that have arrived on the market […] tramadol…'. It is interesting to note that while one would expect that drugs such as cocaine and amphetamine are regarded as 'heavier' drugs compared to a normalised understanding of cannabis (Järvinen and Demant, 2011), IP18 also explicitly mentions prescription drugs as a category but specifies tramadol and benzodiazepine. Compared with other Nordic countries (Denmark and Iceland), the Swedish groups more often sold a variety of different drugs within the same groups. Many of the Swedish groups also sold other illegal goods, such as stolen merchandise and weapons. Only half of the groups were restricted to selling illegal or illegally obtained drugs, compared to around 80% of the Danish and Icelandic groups (Demant *et al.*, 2019).

How are prescription drugs being sold?

Prescription drugs were advertised in 184 out of the 407 posts concerned with the selling or buying of drugs. The remaining 223 posts concerned illegal drugs, such as cannabis, amphetamines, cocaine, and ecstasy. Fifty-four of the posts contained buyer requests for various drugs, while prescription drugs were

mentioned in 30 of them. This indicates a large demand that is yet to be matched the supply side on social media. The remaining 353 posts were from sellers who were advertising the drugs they had for sale. Of the seller posts, 67 concerned prescription drugs only, whereas 87 posts mentioned prescription drugs and other illegal drugs. The most common prescription drugs were alprazolam (60 posts) and tramadol (31 posts). Others that were mentioned quite often include buprenorphine (10), clonazepam (Iktrovil and Rivotril; 27), diazepam (10), medicine to treat erectile dysfunction (10), oxycodone (14), pregabalin (16), and zopiclone (11). The top five prescription drugs sold in separate posts were alprazolam (17), tramadol (13), oxycodone (8), diazepam (8), and pregabalin (7). The top five prescription drugs that were mentioned alongside other illegal drugs were alprazolam (43), tramadol (18), pregabalin (9), clonazepam (Rivotril; 9), and clonazepam (Iktrovil) (8). Thirty buyer posts requested prescription drugs, and these most commonly concerned alprazolam (5), buprenorphine (5), methylphenidate (3), benzos (in general; 3), and pregabalin (3).

Intermixed markets

The number of drugs advertised in each post varied from a few pills to packages of more than 100 pills. The sellers often offered various types of prescription drugs simultaneously. Cannabis and amphetamine were the two drugs most commonly advertised alongside prescription drugs, and these were followed by ecstasy/MDMA and cocaine (see Figure 2).

[Figure 2 HERE]

In other words, the drugs advertised in the same posts as prescription drugs were the most prevalent illicit drugs (amphetamine, cannabis, ecstasy/MDMA, and cocaine; Mounteney *et al.*, 2016; see Figure 2) aside from heroin, which only accounted for a small proportion of the drugs advertised on social media. This may be due to the fact that public social media markets are targeted mainly towards recreational users and that they are targeted towards socially marginalised users who tend to use heroin in tandem with other drugs to a lesser degree (e.g., Hughes, 2007). However, such differentiation between more recreational, regular, and more dependent users is highly contested (Järvinen and Ravn, 2011), which this drug seller and user makes clear (IP7): '[I use] cannabis and amphetamine. Cannabis is recreational, amphetamine is on prescription. I also use cannabis as self-medication against nausea, loss of appetite, and similar'. When pressed further about whether he regards the drugs as a big part of his

life, he answered, 'I would not say that I identify myself with my drug use more than you identify yourself with aspirin use ☺'. This user and seller shows an understanding of his own use as a complex mix of using illicit drugs such as cannabis for self-medication while simultaneously using the prescribed amphetamine (likely Ritalin) for unspecific purposes. This pattern of multidrug use is also found amongst some of the other sellers, such as seller IP15, and again there was an overlap between illicit drugs and prescription drugs:

> Now I use weed or hash; over the last six months, I have also been taking diazepam, ksalol (alprazolam), ecstasy, rivo galenika, ocycontin, and a lot of benzo, but I sell a lot of it. I'm not addicted to any of them, I just tried them.

While this seller does not self-identify as having a 'drug problem', he exemplifies what we generally see in the sample of sellers: namely, that most sellers are also drug users. This finding echoes the findings of most other studies of drug seller practices and cultures (Coomber, 2010).

How are the prescription drugs advertised?

In the public mode of dealing prescription drugs, we found a continuum between amateur and professional posts. This typological distinction reflects the way that products are advertised and often also reflects the volume of sales. Below are two examples of typical illustrations found on Facebook posts from sellers of prescription drugs:

[INSET Illustration 1]

[INSET Illustration 2]

Illustration 1 is an example of an amateur post in which a male or female seller seems to have a real name and profile picture. The text itself is less developed and includes no information other than the name of the drug. There are also one or more spelling mistakes, and the Wickr message here will not be received until the seller is contacted on Facebook Messenger, which adds an unnecessary step. Illustration 2 appears to be a more professional post. It gives the impression that the seller has spent more time planning the information that is presented and planning how to use emojis to make the post stand out.

The post includes information such as prices, location, contact information, discount possibilities, and a direct link to Wickr. The professional sellers also listed various drugs to which they had access as well as different amounts, while the amateur sellers often seemed content with selling the few drugs they had on hand. The professionals also used fake profile pictures (e.g., a neutral picture or a picture of an iconic celebrity or even celebrity criminal) and a profile name that reflected drug selling, such as John Xanaxian, which indicates Xanax sales. Other professional sellers use profile names such as 'blueberries' for alprazolam or 'tram' for tramadol.

In the interviews, some of the more professional sellers claimed to have significant turnover in their businesses; seller IP18 claims that his business has an '…estimated income [of] around 40,000 SEK per month'. This seller describes himself as self-employed and claims that in some other months, he generates far more revenue. At the other end of the spectrum are the sellers who deal in smaller amounts, such as IP7, who claims to deal '…about 10–20 times a month, give or take. That amounts to one or two thousand [Swedish kroner] in extra income a month'. He earns only one or two hundred British pounds per month, but he is still quite active and has many sales. Other low-end sellers only sell when they have something available, such as seller IP10, who deals in multiple drugs: 'I deal with prescription drugs, ecstasy, and some psychedelics when the opportunity is given or I get a good price'. This seller is flexible and sells whatever he can source in his locale. The Swedish sellers also tended to source their prescription drugs on the darknet in so-called cryptomarkets (Martin, 2013; Demant *et al.*, 2018b). One seller (IP3) regards this as normal: 'Of course, all my products are bought from the darknet'. Seller IP1 also buys from the darknet, but hesitates to resell the goods in the same market:

> I have thought about selling there [the darknet], but it would be too much pressure and stress because it requires a lot, more than you think. You need a place (local). And to get ahold of a post box. If you do that with your real name, then you are fucking stupid. People usually buy fake or stolen passports and stuff like that. That could cost you, like, up to 25000 SEK [approx. 2500 GBP] to get a post box. Then you need to have your own space and to package it. To package it, you need to drop it in solproposal (?) or alcohol and stuff like that to get it totally sterile. Then you have to drive around and drop the mail. That's too much pressure and stress. I know how it works, and, yeah.

The social media sellers interviewed during the project regarded darknet selling as too complex. Even though many of the sellers bought drugs in that market, they could not imagine selling there. They preferred social media because it was much easier and involved a mode of communication with which

they were already familiar. Their only concern with dealing on social media was that they were often compelled to meet the buyers in person. It can be hypothesized that the low threshold of digital capital is marked by the differentiation between those who source drugs locally and those who buy on cryptomarkets (Bakken and Demant, 2019). This phenomenon of dealers buying their products on darknet markets before reselling on the surface Web, a practice in which the surface Web acts as a 'retail' portal for goods obtained in 'wholesale' markets on the Dark Web, is an interesting avenue for further research.

Discussion

Prescription drugs are more often sold in separate Facebook posts rather than alongside illicit drugs. However, the posts are buried in the sales groups of other illegal drugs, which shows only a small degree of integration in this 'retail' market. In advertisements, mentions of the originality/copy status of the products are rare. In contrast, social media prescription drug sales in Sweden were fully integrated into the markets for illegal drugs. Swedish social media markets primarily sold alprazolam, tramadol, pregabalin, and clonazepam, which have been described as 'abusable' prescription medicines (McCabe and Boyd, 2005). These were the most common drug types found in Thäderborn et al.'s (2016) register study of driving under the influence – the most frequent was diazepam, followed by flunitrazepam, tramadol, zolpidem, and zopliclone. This study was exceptional in its identification and separation of specific drugs in the analysis. Drugs sold on social media are seldom described with official names; in general, they are sold under nicknames. However, our findings show that the market for prescription drugs in Sweden is focused on sedatives, which seems plausible, given that Sweden (together with Spain) had the most prevalent use of sedatives in the EU (Novak *et al.*, 2016). This Swedish trend echoes the escalating use of prescription sedatives used by youth in the US, and it accompanies a shift towards addictive illegal drugs such as cocaine and cannabis (Martins *et al.*, 2017).

The bulk of prescription drugs sold on Swedish social media, especially those sold by large-scale retail sellers, are sourced from darknet drug markets known as cryptomarkets (Martin, 2014; Demant *et al.*, 2018b). Recent studies on prescription medicine sales in cryptomarkets revealed that hypnotics and anxiolytics comprise a 20.6% share of Swedish cryptomarkets, which amounts to 2,800 specific prescription drug trades (Cunliffe *et al.*, 2019). The tendency of the prescription and illegal drug markets to overlap has also been identified in IPED markets, in which both licit and illicit drugs are used and supplied within the same networks (Salinas *et al.*, 2019). Salinas et al.'s description of such markets as a polypharmacy is an accurate depiction of the current state of affairs in Swedish social media markets.

Finally, this research project found that the public markets on social media with open and semi-open platforms function as both a rendezvous and a multipurpose retail mall for all types of licit and illicit drugs sold by amateur and professional sellers (Hayes *et al.*, 2016).

The easy availability of multiple drugs in the same market may suggest two points related to policy and prevention. First, the intermixing of markets may lead drug users to change to new (illicit) drugs or to more users combining prescription and illegal drugs. Barrett *et al.* (2016) have described the tendency for new buyers in cryptomarkets who are tempted by the large variety of drugs for sale to start using more and using new types of drugs. There is no literature that discusses the effects of social media drug markets on both harm and harm reduction. Informed regulatory practices are virtually non-existent. It has been suggested that sellers in digital markets could provide harm reduction information to the buyers so they can have a safer drug practice (Aldridge *et al.*, 2018). Though some safe drug use information is given in cryptomarkets, no such information is provided in the sellers' social media posts. The sellers' services were more related to delivery time and drug purity. Second, the intermixing of the markets for prescription and illicit drugs may also take part in the reconfiguration of the very idea of licit and illicit drugs. While the science and technology drug scholarship has pointed towards such a conclusion in relation to the *use* of drugs, it has not, besides a more general 'regulation induces harms to users' framework, been discussed how the markets take part in such an enactment (Houborg, 2012). The findings from our study of social media drug dealing have not made it possible to follow all the multiple relations between the drugs and the actors (that is, sellers, buyers, drugs, policies, regulation, technology etc.). However, our findings indicate that market regulation (policies and law enforcement) has a relatively low influence on how drugs are sold and purchased. If market regulation had a larger impact, we would likely have seen a larger split between the prescription drug markets and the illicit drug markets, which would have ensured that prescription drug buyers did not see their 'legal-medical' products alongside drugs classified as illicit. These digital markets are in this way further jeopardising the Swedish government's dream of a drug-free society (Tham, 1995), which has manifested in a national drug control project and their attempts to establish a cultural norm of drugs as 'alien to society' (Bjerge *et al.*, 2016). While Sweden still prohibits illicit drugs, including cannabis, there are now calls for policy change in online and printed media (Månsson and Ekendahl, 2015; Månsson and Ekendahl, 2013). When combined with the easier availability of prescription drugs, the tendency to push back against national policy could provide a further expansion of the already active prescription drug market in Sweden. Further efforts in influencing how users of prescription drugs decide to buy their drugs online may need to influence other matters than the

perceived legality/illegality. We could speculate that such matters, in line with a harm reduction parspctive, relate more to drug quality and concerns related to one's own body.

Limitations

The data collection followed a process specifically designed for studies evaluating illicit drugs in Nordic social media markets, and it did not follow a process designed specifically for prescription drugs.

Conclusion

The social media markets in Sweden traffic prescription drugs alongside non-prescription illicit drugs. Facebook and other social media platforms provide a suitable low-entry threshold for anyone to sell or buy prescription drugs in large quantities or for personal use. Social media platforms convenient and user-friendly and provide a platform primarily servicing groups that use drugs for pleasure or performance optimization (abusable prescription medicines). We find that drug sellers also use and/or abuse drugs to a large degree. The social media markets for drugs can be perceived as a continuation of existing pathways into drug selling. However, it is important to stress that because more amateur and professional sellers can be observed operating side by side, amateur sellers may be tempted to move into more large-scale retail operations. This situation may escalate further because of the ease of access and breadth of available drugs to amateur sellers who source drugs from darknet markets and are thus no longer dependent upon their ability to establish local networks with mid-level dealers. Given the easy access to prescription drugs on social media and the easy supply from cryptomarkets, monitoring the development of prescription drug markets on social media is becoming increasingly important.

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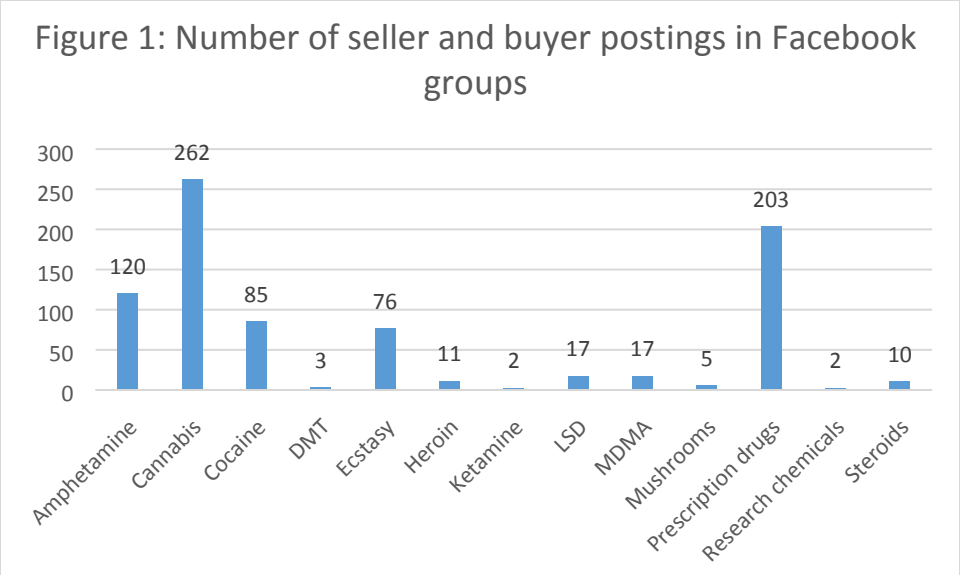

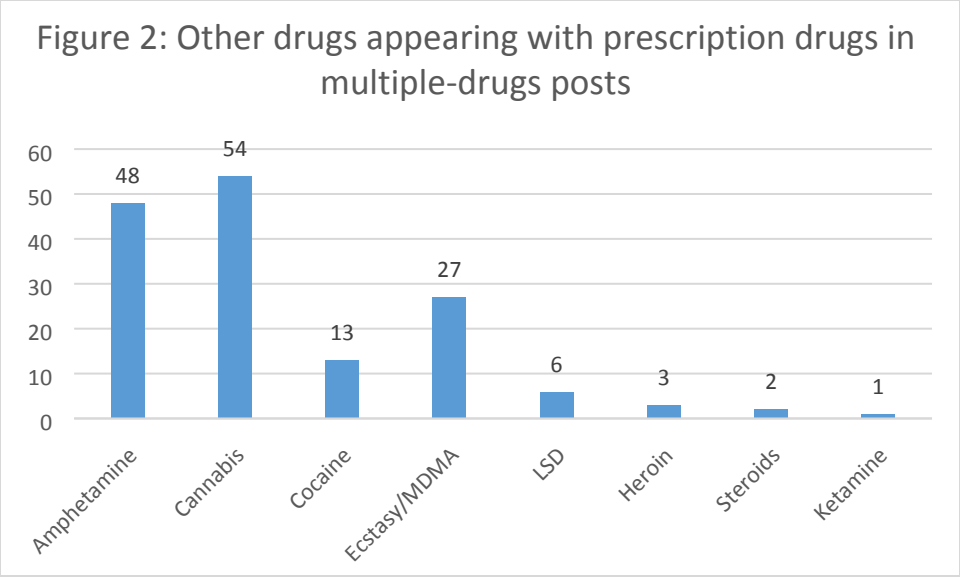

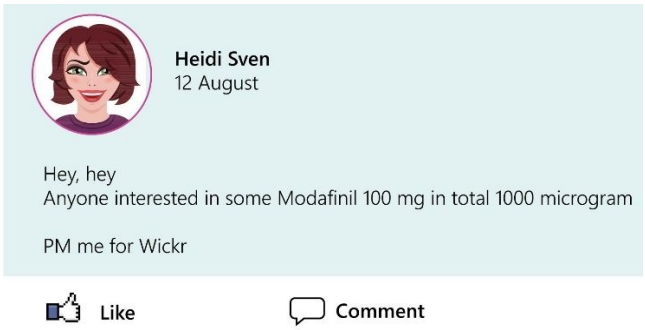

Illustration 1: An amateur seller post

Illustration 2: A professional seller post