

Northumbria Research Link

Citation: Antonopoulos, Georgios and Hall, Alexandra (2016) 'Gain with no pain': Anabolic-androgenic steroids trafficking in the UK. *European Journal of Criminology*, 13 (6). pp. 696-713. ISSN 1477-3708

Published by: SAGE

URL: <https://doi.org/10.1177/1477370816633261>
<<https://doi.org/10.1177/1477370816633261>>

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/id/eprint/34007/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)



**Northumbria
University**
NEWCASTLE



UniversityLibrary

‘Gain With No Pain’: *Anabolic-Androgenic Steroids Trafficking in the UK*

Abstract:

Anabolic-androgenic steroids are performance and image enhancing drugs (PIED) that can improve endurance and athletic performance, reduce body fat and stimulate muscle growth. The use of steroids has been studied extensively in the medical and psychological literature, as well as in the sociology of sport, health and masculinity. From the late 2000s, the worldwide trade in steroids increased significantly. However, trafficking in steroids remains a largely under-researched criminological phenomenon with a few notable exceptions. Currently in the UK there are only small and fragmented pieces of information available relating to steroids trafficking in autobiographical accounts of professional criminals. Drawing on original empirical data, the purpose of this paper is to provide an account of the social organisation of the steroids trafficking business in the UK. The trade in steroids is decentralised, highly flexible with no hierarchies, and open to anyone willing to either order the merchandise online, or travel to producing countries and obtain steroids in bulk from legitimate manufacturers. The patterns of trafficking of this specific type of substance are patently conditioned by its embeddedness in the gym/bodybuilding scene and this greatly affects relations between actors in the business. In the steroids market one typically encounters a multitude of individuals likely to drift between legality and illegality, online and offline, use and supply.

Introduction

The use of performance-enhancing drugs in sports is not a new phenomenon. Ancient Greek athletes drank various brandy and wine mixes and ate hallucinogenic mushrooms and sesame seeds to enhance performance, the gladiators in Rome’s Colosseum used stimulants to overcome fatigue and injuries, and medieval knights used unspecified stimulants to improve stamina during training and battle (Yesalis and Bahkre, 2002). In more recent times numerous performance and image enhancing drug (PIED) scandals have tainted the image of professional sports, such as the turmoil surrounding the Festina cycling team in 1998, the *Tour-de-France* seven-time winner Lance Armstrong (Yar, 2014), various cases of doping in tennis, football and basketball, and the November 2015 WADA report into corruption and doping in Russian athletics (Mather, 2015). One popular category of PIED is anabolic-androgenic steroids (hereafter, steroids), which are frequently produced in pharmaceutical laboratories in countries with lax laws, or in small underground laboratories in countries where stricter laws are present, usually using raw substances imported from abroad.

Steroids are essentially synthetic derivatives mimicking natural hormones that regulate and control how the body develops and maintains itself. Functioning in a similar way to the male hormone testosterone, they can improve endurance and athletic performance, reduce body fat and stimulate muscle growth. Arguably steroids are primarily (mis)used by men (Williamson, 1993; Home Office, 2013; cf. Bunsell, 2013) as a way of improving sports performance and speeding up the process of healing after an injury, or to build muscle mass and ‘bulk up’ (see Sweitzer, 2004; Martin, 2007; Turvey and Crowder, 2015). The use of steroids has been studied extensively in the medical and psychological/psychiatric literature (see, for example, Hallsworth *et al.*, 2005; Kanayama *et al.*, 2008; see also McVeigh *et al.*, 2015), as well as in the sociology of sport, health and masculinity (see, for example, Fussell, 1991; Monaghan, 2001; 2002; Monaghan and Atkinson, 2014; Dunne *et al.*, 2006).

From the late 2000s, the worldwide trade in doping substances, including steroids, increased significantly (Paoli and Donati, 2014). This was met by increased media and public

policy attention on corruption and the supposed involvement of ‘organised crime groups’ in the world of international sport (see The Guardian, 2013; UNODC, 2013). Within this context one can identify the usual ‘organised crime’ rhetoric: the conflation of disparate phenomena (e.g. ‘doping’ and ‘match-fixing’), the use of threatening and menacing images, and the apparent involvement of ‘mafias’ and shady ‘underworld’ figures (UNODC, 2013). In 2014, for instance, the director general of the World Anti-Doping Agency, David Howman, emphatically noted the involvement of ‘mafia’ groups and ‘organised crime’ in steroid distribution in the UK, which, he argued, is one feature of their wider participation in sports corruption internationally (see for example Gibson, 2013; Rumsby, 2014; Australian Crime Commission, 2013; Lindberg, 2006).

Despite these claims, trafficking and trading in steroids remains a largely under-researched criminological phenomenon. In 2014 Fincoeur *et al.* identified a meagre 15 publications while conducting a search for studies exploring the *market* in doping products in the *Criminal Justice Abstracts*; the majority of which came from the field of ‘forensic science’ (see also Musshoff *et al.*, 1997; Paoli, 2012). Notable exceptions from criminologists include the work of Kraska *et al.* (2010), whose mixed methods study, integrating ethnography and content analysis, unearthed a globalised and decentralised steroid marketplace facilitated by the Internet and stimulated by a demand-side best understood as “a cultural milieu ideal for cultivating within a large segment of the populace a strong desire to enhance their appearance or performance through the use of pharmaceuticals—whether legitimately obtained or not” (Kraska *et al.*, 2010: 181).

Moreover, Paoli and Donati’s (2014) work, which, drawing on multiple data sources largely accessed via the Italian criminal justice system, is by far the most integrated study on doping substances in general (including steroids). This study considers the main socio-demographic characteristics of known illegal suppliers of doping substances and offers a typology of suppliers and an account of their motives. The authors identify the multiple and partially overlapping distribution chains composed of legal actors - official sports bodies, physicians, trainers, gym owners, etc. - and illegal suppliers, including Italian ‘mafia organisations’. They found the involvement of so-called mafia groups limited and, instead, discovered a market consisting of schemes in which the distinction between legal and illegal is virtually redundant. According to their research, the primary motive of suppliers is profit, however, staff members of sports teams who become involved in the trade can also be motivated by their over-conformity to a sports ‘ethic’ that pushes athletes to use doping substances (Paoli and Donati, 2014). Paoli and Donati (2014) also focus on the financial dimensions of doping supply chains, including prices, revenues and profits, and suggest that doping products in general are relatively cheap, especially if they are bought online. The authors estimate the usage of various doping substances and reach the conclusion that steroids and bodybuilders account for the lion’s share of all doping products dosages (58.9%). Of course, as they point out, these estimations should be treated with some reservation due to the difficulties associated with providing accurate estimations of ‘hidden’ populations and unrecorded transactions, which make it an “almost impossible exercise to assess... the size of the market for doping products in Italy” (Paoli and Donati, 2014: 50).

In view of the obstacles associated with assessing and exploring the steroid market, a general lack of information is available relating to the United Kingdom (UK) context, which is currently limited to small and fragmented pieces of information available in autobiographical accounts of professional/‘organised criminals’ (see for example the 2003 and 2009 work of Carlton Leach, who was a member of a criminal network that was active during the late 1980s and 1990s). The main aim of this article is to draw on a set of original empirical data collected in both online *and* offline contexts, in order to begin to provide an account of the social organisation of the steroid trafficking business in the UK. Following an

initial discussion of the methods employed and data collection process, we discuss the consumption and prevalence of steroids in the UK, which includes a brief categorisation of steroid users and their motivations. We then analyse the nature and dynamics of the steroid trafficking business, before focusing specifically on the distribution of steroids in the UK. The article ends with a discussion of our findings, framing the article in a broader discussion of the material and cultural processes and structures at work in this context.

Methods and data

A number of methods and sources were used to collect data on the social organisation of the steroid market in the UK. Primarily, a UK-based virtual ethnography was conducted as part of a wider study exploring the online trade in counterfeit medicines (www.FAKECARE.com)¹. Primary data were collected via the virtual ethnography between June 2013 and March 2014. Initially, research began with a period of non-participant observation (sometimes referred to as ‘lurking’), whereby observations were made in online forums (e.g. ‘onlinerooids.com’; ‘juicedmuscle.com’; ‘steroidsrx.com’) and social networking sites without direct interaction with users. This was an invaluable primary and non-reactive (see Fielding *et al.*, 2008) stage of data collection that gave us the opportunity to familiarise ourselves with such a mass of information and specific interactions. Just as Webber and Yip found in their analysis of the online trade in fake credit cards, internet forums are a largely untapped resource of empirical criminological research (Webber and Yip, 2013: 193). As we found out, many of these forums were created solely for the purpose of marketing and distributing steroids.

We then began to collect data online in reactive ways, whereby social media profiles, forum profiles and email accounts were established in order to interact with users and participate in discussions with online consumers and suppliers of illicit medicines, some of whom were buying or selling steroids. In terms of selecting forums to enter, a literature review and online searches via Google were undertaken to identify forums that related to specific topics with links to bodybuilding that appeared or claimed to cover UK contexts. This was decided after general searches, observations and discussions as to the most appropriate sites that individuals would use to trade in steroids and/or discuss steroid use. This method was then used to collect rich data from sellers and consumers on various online sites, which was then analysed, pooled and categorised in order to look for common demand-side and supply-side patterns.

Secondly, we collected data via traditional ethnographic methods. The offline ethnography was conducted between January 2014 and February 2015 in a locale in the Northeast of England with one of the highest rates of steroid use in the UK (Kean, 2012; see also next section). During this period, research-related activities such as observations took place at least three times per week (with the exception of August 2014). The primary research site was a gym in which the use and trade of steroids is widespread. Data were also collected at 3 fighting events, 2 bodybuilding competitions and 2 product promotion events in the area. Within the context of this ethnographic research, we interviewed 13 steroid users and 7 steroid traders, which provided us with invaluable opportunities to acquire knowledge regarding the use and trade of steroids, as well as a variety of other illegal activities. To a considerably lesser extent, data were also collected in relation to other performance-enhancing substances (such as HGH, testosterone, etc.). The offline ethnography also

¹ ‘www.FAKECARE.com’ is a European Commission–funded project that aims to develop expertise that can help appropriate agencies to tackle the online trade of ‘fake’ medicines by, among other, providing an in-depth knowledge of the supply and demand dimensions of this market. The project coordinator is Andrea Di Nicola and the project manager is Elisa Martini (eCrime, University of Trento, Italy).

included more structured interviews with drug workers² (n=6), former steroid users (n=4), semi-professional Mixed Martial Arts (MMA) fighters (n=3) and amateur sportsmen (n=6), gym employees (n=3), and NHS psychologists (n=3) who have worked with steroid users. Steroid users and dealers attend specific venues - most notably gyms - regularly and in a disciplined fashion as part of their training regime and consumption patterns. Having joined the gym, the researcher began regularly attending and, over time, formed relationships with fellow gym attendees who were steroid users and/or dealers. This made access particularly straightforward during the ethnography, where in many cases our initial participants introduced us to other users and dealers. Therefore, participants belonging to different groups (e.g. former steroid users, current steroid users, dealers, etc.) were identified either in the course of the ethnographic study, or were referred by other participants via a method of snowball sampling. One of the greatest advantages of this method of sampling is the 'informal' way a researcher can identify and build rapport with participants from hard-to-reach populations (Atkinson and Flint, 2004).

Thirdly, we collected data from the UK Medicines and Healthcare products Regulatory Agency (MHRA), the National Crime Agency (NCA) and Interpol. This involved 6 semi-structured interviews with experts in these organisations in the UK and abroad, including attending Interpol's 'single points of contact' meeting on illegal medicines in Lyon in March 2014. The MHRA also provided us with access to a number of historical and ongoing judicial and investigative cases relating to the trade.

Interviews were conducted as free-flowing conversations with participants on a series of occasions. For some of the interviews tape-recording was possible, but for the vast majority was impractical. This largely depended on the time/hour of the interview, the space in which the interview took place and the mood of the interviewee. We were also cautious because our past experiences conducting empirical criminological research have led us to believe that the interviewer-interviewee relationship, the interviewing process, and the breadth and quality of data collected, can significantly improve if a tape-recorder is avoided (see also Rapley, 2001). The use of a tape-recorder introduces an element of formality in a generally informal setting in which participants are discussing sensitive and confidential issues. Instead we used notebooks either during or immediately after the interview had finished. Furthermore, we completely avoided using terms such as 'organized crime' and 'smuggling/trafficking' during the ethnography because it is possible that the interviewees may be influenced by the terminology or discouraged from providing open accounts. A memorised interview guide was used during all of the interviews conducted as part of this research. It included several sections such as 'steroid use', 'people involved in the business', 'obtaining and storing steroids' and 'distributing steroids'. Thematic analysis was then conducted on the data. This analysis primarily summarised and described patterned meaning in the data. The themes were induced from the information the participants disclosed. The 'interview-data-as-a-resource' tradition was used to reflect the interviewees' reality (Seale, 1998) about the topic. Rather than the interview guide informing the sections of the article, in a similar vein to Maguire, and on the basis of previous experiences researching various illegal markets, we had a vision of the article's structure and 'worked backwards' (Maguire, 2000: 138).

Finally, we collected, examined and analysed published media sources which allowed us to obtain some information on steroid use and the actors involved in the steroid trade. This included analysing the content of newspaper articles and other open sources (predominantly from drug agencies and health organisations) online. In order to explore activities, structures and the general context in which steroid use and supply takes place, we used combinations of

² In the UK, drug workers are professionals who help people to tackle problems with substance abuse.

a number of alternative and relative search terms: ‘steroids’, ‘anabolics’, ‘anabolic-androgenic steroids’, ‘doping’, etc. Furthermore, we subscribed to body-building magazines such as *Muscular Development*, which is produced abroad yet circulated in the UK and provides steroid suppliers situated outside of the UK the opportunity to market and advertise their products to British citizens.

Our study presents some limitations, which should be acknowledged at this stage. Firstly, during ethnographic research there can be no guarantee that the information given is a wholly neutral representation of the activities and actors; one needs to remember that accounts offered in an ethnographic study are consciously or unconsciously interpreted by the researcher. Moreover, the data are limited to what the participants have provided and what the researcher has observed, and perhaps they cannot be generalised to the whole steroid trafficking scene. In relation to the interviews with the informed actors one can never be absolutely certain about validity, although ‘member checking’, the “process in which collected data is ‘played back’ to the informant to check for perceived accuracy and reactions” (Cho and Trent, 2006: 322), significantly contributed towards eliminating untruthful accounts. In addition, there is also the issue of representativeness of the sample. As mentioned, the researchers used a method of snowballing sampling to identify participants during the offline ethnography, thus limiting the sample to the researcher’s own personal network and their potential biases and, as a consequence, the scope of the findings (Levi, 2015). Issues of validity and generalisability are also apparent during online ethnographies. However, while some information may be inaccurate and some posts may be misleading, this should not lead to a general dismissal of data collected online. A multitude of licit and illicit interactions and commercial activities increasingly take place online. Researching virtual worlds is, therefore, of utmost importance to sociological and criminological work. Indeed, it has been argued that “the anonymity of cyberspace allows internet users to express themselves in ways that may be constrained in their real world interactions”, enabling a process of ‘authentic’ self-expression (Rodham and Gavin, 2006: 95).

Secondly, there can be limitations in accounts and data provided by the authorities. These are the result of law enforcement activity, which in turn is affected by resource restrictions, the competency of agents, organisational priorities, and wider political priorities (see Hobbs and Antonopoulos, 2014). Thirdly, there are limitations related to open sources. Not only do they commonly rely on information provided by the authorities, thus not reporting ‘successful’ schemes, but they also tend to present illicit activities and actors in sensational and morally charged ways. Moreover, sources derived from search engines depend on the researchers providing keywords, a process which may lead to the exclusion of reports that are peripherally relevant but extremely important for the wider context of the study (see Jewkes, 2011). Nevertheless, we think that the methodological triangulation throughout the study – involving both official and ‘unofficial’ sources - has created a net that has captured the most important aspects of the topic under investigation and we believe and claim that there is a high degree of validity in the findings.

Finally, a note on ethics is warranted. Ethical approval for both the online and offline contexts of the research was granted by our university’s research ethics committee. Needless to say that consent forms were neither provided to nor signed by our participants because of the sensitive nature of the research. However, it should be mentioned that all participants were verbally informed about the purpose and nature of our research as well as their rights (as participants) as put forward by the ‘Code of Ethics’ of the British Society of Criminology (BSC, 2015).³

³ Although many of the participants did not see the point in the researchers informing them of their rights as participants. In fact on one occasion, when the researcher started informing the participant (steroid trader) of his rights and specifically his right to withdraw from the interview whenever he wanted, he responded with the

Prevalence and Use of Steroids

A number of factors have resulted in a general lack of data on the prevalence of steroid use in the UK. Firstly, the legal and regulatory framework relating to steroid distribution and consumption in the UK has shifted over time and is now multiplex. Currently steroids are prescription-only drugs under the Medicines Act and they can only be sold by a pharmacist on the presentation of a doctor's prescription. Without a prescription, steroids are classed as Class C drugs under the Misuse of Drugs Act.⁴ It is legal to possess or import steroids as long as they are for personal use and as long as the importation is carried out *in person*. Importation or exportation of steroids for personal use using postal, courier or freight services is illegal. Possessing or importing with intent to supply is illegal and could lead to up to 14 years in prison and an unlimited fine (Advisory Council on the Misuse of Drugs, 2010, see also DrugScope, n.d). This has led to confusion and a general lack of awareness and legal knowledge among some steroid suppliers and users that we interviewed.

Secondly, the drug is now deemed as a low priority for regulatory and law enforcement officers and policy officials, as a leading officer at the MHRA we interviewed noted: *“When the MHRA was responsible for steroids, it was one of our top priorities. We regularly raided gyms and other venues. When it became a Class C drug, it became an issue for the police. The police are not interested in steroids, though. So from a top MHRA priority it is now at the bottom of the list of police priorities”* (interview with MHRA officer). Therefore, the time and resources spent on tackling the illicit steroid trade in the UK has fallen, arguably leading to misrepresentations of the size and scope of steroid use and supply in the UK. Finally, our data corroborate the findings of previous research (e.g. Pope and Kanayama, 2004; Pope *et al.*, 2004; Pope 1998) that steroid users largely distrust healthcare professionals⁵ and rarely seek treatment or disclose their steroid use, resulting in a large number of unrecorded incidents and an overall underestimation of prevalence in the official statistics.

The figures available estimate only 0.1-0.3% of the population in England and Wales aged 16-59 used steroids in the 12 months prior to the British Crime Survey, whereas the estimated number of people who have used steroids in their lifetime is approximately 271,000, with those 16-24 years old accounting for approximately 52,000 (Home Office, 2013). However, evidence suggests this is a significant underestimate, with one expert noting: *“There are needle exchanges in Cardiff and Glasgow which say they’ve seen a 600% increase for steroid users over 10 years. The real figure is definitely in the hundreds of thousands”* (cited in Walker, 2015). Indeed, steroids are the *only* type of drug in the UK that presented an increase in prevalence from 2002-2003 to 2012-2013.⁶ Moreover, if focusing solely on those attending gyms, the percentage of use rises dramatically to 20-40% (DrugScope, n.d). The percentage of steroid users who reside in the locale in which we conducted our offline ethnography is 2.06%, which is approximately 10 times higher than the national average (Kean, 2012). Our research, combining all types of data we collected and analysed, identified two general types of steroid user:

following: *“Do you think I need this nonsense? Of course, I can quit whenever I want... I don’t need your permission, mate. I can punch you and leave...”* .

⁴ In this article we use the terms *medicines* and *drugs*, interchangeably, to refer to steroids.

⁵ Apart from health professionals who provide the steroids and assist users in consuming the drug.

⁶ Incidentally, during this period hospital admissions for steroid poisoning increased, and there is a growing rate of HIV, hepatitis B and hepatitis C infection among users (see Walker, 2015).

1. *Occasional users*: Occasional steroid users are a trend that emerged in the late 1980s/early 1990s. The majority of these users are teenagers and young adults. Some are students involved in sports teams at college and university who want to improve their sports performance quickly. Others are young people who occasionally use steroids for purely cosmetic/aesthetic reasons, sometimes in a bid to appear more muscular before a night out as a way of attracting someone for sexual purposes. Occasional users are those who do not have extensive knowledge of steroid brands and types, their differential toxicity, cycles of use, benefits, or side-effects. The majority of occasional users we interviewed, for instance, use steroids in tablet form because it is considered easier and safer to consume. However, steroid tablets can be highly toxic and tend to be avoided by both experienced users and steroid traders.

2. *Regular users*: This type of user, which is the largest category of user we accessed via our offline ethnography, includes *competitive and non-competitive professionals* whose sports performance and/or bodily capital (weight and shape) is essential for their work and for whom the possible dangers associated with regular steroid use are an ‘occupational hazard’ rather than a deterrent. In our research data this included bodybuilders, MMA fighters, bouncers, private security staff, construction workers, police officers, prison guards, firemen, army officers, and bodyguards for drugs dealers. As Gabriel, a powerlifter, and Joe, an ex-steroid user and drug worker remarked:

“Anything goes for men who compete. For him it is as important as the gym. You cannot go further without steroids. And steroids work! There is absolutely no doubt about the effectiveness of steroids. They definitely work” (Gabriel, powerlifter).

“If you are to be confronted with people of that size who have used steroids, you might as well use steroids too” (Joe, ex-steroid user, currently drug worker working with steroid users).

Regular users also include *semi-professionals* such as unlicensed boxers and ‘bare-knuckle’ fighters: *“you can see them in [name of area], getting out of fancy cars, and I can tell you they are ‘pimped’ by those who own the cars. They take ‘juice’⁷ for as long as they take part in the sport, and then they stop”* (Gabriel, powerlifter). Finally, this group includes *amateur bodybuilders* who want to increase their muscle mass, reduce their body fat and quickly deal with injuries that negatively impact on their training patterns. This type of regular user can be characterised by discipline, often verging on obsession.

There are a number of social, behavioural, environmental and personal motivations that can contribute to regular steroid use. In the gym we came across ex-prisoners who had wanted to ‘bulk up’ as a way of protecting themselves from other inmates. Others regularly used steroids because they enjoyed the admiration they received as a result, which improved their self-esteem. Irrespective of the motivation, during our gym ethnography we found regular steroid use was overwhelmingly embedded in wider cultures of (hyper)masculinity (*“...the buzz or ‘addiction’ of being admired by other men in public”*), informal competition among friends (*“being bigger and stronger than your friends in the gym”*), and a collective ‘gym identity’; especially among the core group of gym members, where size and strength was a sign of success over a rival gym. An example of the latter was the competition between two so called ‘meat-houses’ in the wider area of our ethnographic research, who compete along these lines. Winning this informal competition very often leads to work in the local

⁷ Slang for steroids.

‘underworld’, since criminal entrepreneurs – drug dealers, illegal traders in tobacco, loansharks, debt collectors – in the area often use these gyms, as well as local fighting competitions, to pool ‘muscle’ for their enterprises.

Furthermore, a distinction can be made between steroid users who are *specialised users* and consume steroids only, and those who are *versatile users* and consume a wide range of substances; not only to enhance the ‘positive’ effects of steroids, but also to counterbalance the negative side-effects. According to the psychologists we interviewed, an overwhelming majority of steroid users in treatment are polydrug (mis)users. One example from the online ethnography was a versatile user who consumed steroids, male hormones to boost testosterone levels (Testofen© and Nugenix© in particular), cocaine, lithium pills to treat bipolar disorder, Viagra, sleeping pills and anti-depressants. Such users are the ideal-type of customer targeted by online suppliers who deal in a range of pharmaceutical, performance-enhancing and psychoactive drugs simultaneously.

The Steroid Trafficking Business

As mentioned earlier, in public discourse the trafficking of steroids is generally contextualised as the activity of large-scale, centralised and organised criminal networks. However, such structures were not present in our research. On the contrary, we were able to identify highly *decentralised* entities involved in the trade; entities that may have the same supplier abroad, yet act independently of one another. To a large extent this can be explained by the increasing role played by the Internet, which provides opportunities for dispersed actors to connect and virtually anyone to become a steroid distributor. However, there are hybrid models present, which include both online and offline channels in the same scheme. For example, a case from our research included a gym-owner buying large quantities of steroids from a website, and selling the merchandise to bodybuilders training in his gym and other gyms locally. Gym-owners can often be the link between the offline and online spheres. Overall, we found a number of actors present in the British steroid market:

Producers: We found two types of steroid producers. The first is *legal pharmaceutical companies and laboratories*. In almost all cases we identified, a physical address was offered, highlighting legal manufacturers based in the UK, Bulgaria, FYROM, Egypt, Greece, Thailand, Turkey, USA, India, Iran, Singapore, Japan, China, the Netherlands, Mexico, Russia, Poland, Canada or Malaysia. In a large number of cases manufacturers based outside of the UK were advertising their products in UK-circulated magazines (e.g. ‘Muscular Development’ which is a magazine produced and circulated primarily in the US), which included steroids, alongside a range of complimentary products - fat burners, natural anabolic agents, and other dietary and herbal supplements - aimed at the customer interested in performance or image enhancement. The second type of producer is *illegal/unlicensed laboratories*. Although on some occasions the geographic base of these illegal/unlicensed laboratories is not easy to identify, information from law enforcement agencies highlighted operations based in the UK and in jurisdictions abroad such as Thailand, China, Cyprus, and Greece.

Online Pharmacy Operators: The primary site for steroid supply online is *Online Pharmacies* (OPs). OPs are pharmacies that operate over the Internet and post their products to consumers via a shipping company or the postal service. Outside legitimate OPs, a large number of illegitimate OPs are in operation. However, in the context of the global and detached nature in which they operate, the distinction between legitimate and illegitimate operations can often become blurred.

Illegitimate online pharmacy operations vary in size, scope and locality, and often use a variety of product marketing techniques across a range of online and offline sites (for more details on this aspect of the trade see Hall and Antonopoulos, 2015; Lavorgna, 2015). To project the appropriate image and enhance credibility, illegal entrepreneurs pay particular attention to the design of the website, providing scientific information on the issue, accompanied by photographs of health professionals; some offer forged online prescription services which simply ask the customer to ‘virtually discuss’ their supposed health concerns with someone posing as an online doctor. In many cases, illegitimate OPs claim to obtain their merchandise from legal manufacturers:

“To ensure the complete safety of our world-class medications www.XXXXXXX.com receives all supplies either directly from the pharmaceutical manufacturers, including Pfizer, Schering AG, GlaxoSmithKline, Novartis, Sanofi-Aventis, Roche, or from local pharmaceutical distributors with which we have had completely secure relationships for years” (note from online ethnography).

In addition, these websites are embellished with extremely detailed *Frequently Asked Questions* (FAQ) sections as another indication of reliability. In 2008 the UK introduced the green cross logo in order to offer legitimacy and to help UK consumers identify authentic online pharmacies. However, some rogue pharmacies have attempted to plagiarise the logo on their sites. Other obvious ways to tell if an OP is acting illegitimately is the concealment of their physical address and the webpage’s connection to a non-compliant registrar.

Alongside illegal online pharmacies, forums and social networking sites offer steroids online without a prescription. The sale of *counterfeit* steroids is also a significant issue that is particularly apparent in the context of the online trade. The most popular steroids Deca-durabolin (‘Deca’, in trader and user vernacular), Winstrol (‘Winny’), and injectable testosterone are among the most counterfeited PIEDs. The problem is so acute that an e-book titled *The Secrets of Mail Order Steroid Success* was published in 2004 (Spellwin, 2004), to provide advice to users ordering steroids online who are looking to minimise the possibility of buying and consuming counterfeit products.⁸ In addition, legal manufacturers’ websites offer information about the security measures taken against the *counterfeiting* of steroids.

Importers: Steroid importers operate on a regular basis. Importers are most often individuals who are linked to the supplement scene or sports scene. Examples from our research include a gym owner travelling to Thailand every 6-7 months, returning with supplies which were then distributed in his gym, and a Polish supplement shop owner importing the merchandise from Poland by car. They both import large quantities of steroids per operation: ‘... *at least one suitcase of steroids*’ (interview with gym owner).

Middlemen: The presence of brokers and middlemen in the business draws many similarities to other drug markets. There are two types of middlemen in the steroid trafficking business that we came across: (a) middlemen who simply connect parts of the business and, specifically, the producers and the importers; (b) middlemen who link parts of the process *and* are involved in the actual trade of steroids in the UK.

Retail sellers: There are different types of retail seller supplying steroids across a range of sites: (a) *offline sellers*, these are individuals who distribute steroids having built up a

⁸ Although this is beyond the scope of our study, ‘anabolic steroid scammers’ are also a serious issue for steroid users, and in various bodybuilding forums steroid scammers e-mail addresses are provided in order for prospective users to avoid transactions.

customer base in gyms and via other related sporting events. They often own or regularly frequent gyms, or are somehow connected to a gym owner (family member, close friend, business partner/colleague); (b) *online sellers*, our research has found numerous sellers of steroids across various online sites, including online pharmacies, social media sites, forums, classified advertising sites, and a variety of darknet sites on the deep web. Some use a number of sites simultaneously to market their products (see discussion above) and will often sell a range of pharmaceutical and psychoactive substances. These sellers may have little experience of steroids or knowledge of attendant steroid subcultures. Alternatively they may also be offline sellers with more expertise; (c) *user-sellers*, individuals who are regulars in gyms and participants in the bodybuilding/power-lifting/fighting scene, who consume *and* sell steroids primarily to friends and other bodybuilders. The large number of steroid sellers who are also users is a feature that greatly affects the steroids trafficking business at the local level. There are many instances in which additional ‘layers’ are added to the process of distribution as a result of the large number of individual user-sellers supplying small quantities to friends and acquaintances. This trend of ‘social supply’ has been identified in other substance markets (see for example, Pearson and Hobbs, 2001; Coomber and Moyle, 2013; Moyle and Coomber, 2015). User-sellers enjoy a higher status among bodybuilders because they are seen as facilitators of their muscular development and improvement, as one of our interviewees suggested: “*you get dealer kudos, if you can be the one to ‘sort me out’*”; (c) *employee-sellers*, gym managers or personal trainers who do not use steroids, who are trusted and who, for an extra £10 on average (as we observed during transactions in the gym, which were later corroborated in interviews with users), will administer the drug. Employee-sellers often work alongside importers who own gyms in which steroids are sold. As opposed to the importers, the majority of the sellers are, what Dorn *et al.* (1992) call, ‘opportunistic irregulars’, who have a small opportunity to profit from the business.

Furthermore, as we have touched on above, a distinction can be made in relation to steroid traffickers along drug *versatility-specialisation* (see Pearson and Hobbs, 2001; Matrix Knowledge Group, 2007 for versatility and specialisation in other drug markets). A number of individuals involved in the trafficking of steroids are part of a multi-drug enterprise. Our evidence suggests, for instance, that some steroid traffickers in the UK also trade in cocaine, amphetamines and cannabis. There are others, primarily those who are involved in legal businesses in which steroids can be easily distributed (e.g. gyms, supplement shops) that focus exclusively on steroids and other PIEDs. Finally, there is the rather rare case of steroid dealers who also trade in substances that counterbalance the negative side-effects of steroid use, such as erectile dysfunction and mood enhancement medicines.

Distribution of Steroids

The association of steroids with the gym/bodybuilding scene greatly affects offline steroid distribution patterns at the local level. In many of these scenes steroid use is normalised and an inherent part of the socio-cultural landscape. In accordance with international evidence and literature (see Monaghan, 2001; 2002), it emerged from our research that the use of steroids is widespread in some gyms. The use of steroids takes place in ‘discreet places’ such as toilets, changing rooms, and ‘posing rooms’.⁹ Offline sellers do not usually approach individuals on the premises and only deal with friends and acquaintances. This highlights the importance of networking, particularly for this stage of the business, and verifies Spapen’s (2007: 5) claim that “*the quality of an entrepreneur’s social network determines his business*

⁹ ‘Posing rooms’ are rooms (with mirrors on all four walls) in which bodybuilders undress in order to observe themselves and monitor their progress after a training session.

opportunities". The distributors' technique of approaching people known to them serves other purposes: to avoid friction between the sellers and uninterested clients and to avoid unnecessary contact with socially distant gym frequenters who may be police officers. While prospective clients can also approach a steroid trader, traders are reluctant to supply steroids to clients they have no previous relationship with, or people whom a trusted individual has not vouched for.

However, we observed cases involving seller and prospective customer engaging in a process of trust-building, which includes various stages of information sharing and mentoring. Our research found user-sellers who mentored less-experienced gym members for free, providing advice on training, nutrition and supplements (protein, creatine, fat burners, amino acids, etc.). During the offline ethnography one of the researchers witnessed a gym attendee *actively* looking for steroids, who had been training for a year and was not satisfied with his progress in his attempt to "*look like a beast*" (gym attendee). In an open conversation about the issue with the gym owner, who was a known steroid trader, a mentor-mentee relationship was forged. Instead of immediately agreeing to provide steroids, a lengthy discussion about exercise patterns, diet and the necessary steps he should take before resorting to steroids took place:

"If eating more protein and carbs, increasing weights and creatine do not work, only then we'll talk again about 'gear'... Let's talk about it in a few months' time. Do everything you can and we'll talk about 'juice' then..." (Ricky, gym owner and steroids trader).

The mentality and approach of this particular trader is, according to many of the participants we interviewed from the gym/bodybuilding scene, very common in the business, and highlights that not all steroid traders fit the stereotype of a drug entrepreneur who is motivated by profit alone. This process of trust-building allows the steroid trader to manage the risks involved in his illicit steroid business *and* is often based on a genuine interest in the progress of others. This supports and extends Paoli and Donati's (2014) analysis of the motivations of steroid traders who are members of sports teams.

Therefore, at the local level, the UK steroid market often requires the development of trust within a steroid-related subculture as threshold for access to a distributor supplying merchandise of adequate quality. Without a pre-existing relationship between seller and user, the quality of a product cannot be guaranteed. One example from the data was a steroid user who, in search for more "*powerful stuff*", decided to buy his steroids from a Polish supplier and owner of a supplement shop in the local area with whom he had no prior relationship, only to find the quality of steroids provided was inadequate:

"I went to the [name of a Polish manager of a supplement shop] for 'juice' and I got this Egyptian 'gear', it was shit, man... I was ok for a day and then it was like water, it went. It was shit...." (Dave, steroid user).

The nature of *online* steroid distribution highlights a number of similarities and differences. Our virtual ethnography highlighted that no prior relationship is necessary to obtain steroids online, where buyer and seller never meet and steroids are bought and sold in spaces of relative anonymity; both on the surface web via online pharmacies and on the deep web across a number of darknet sites. As Fincoeur *et al.*'s (2014) analysis of doping in cycling in particular highlights, as anti-doping policy has shifted and become more punitive, the distribution of PIEDs has moved away from dealers embedded in a sporting sub-culture to a range of 'non-experts', which leaves users at greater risk. The Internet opens up opportunities for such non-expert suppliers active in the steroid market, offering mechanisms used to target

occasional-users or beginners who lack contacts in a local gym culture. In these instances there are a number of risks for online consumers to weigh up. Whereas a local dealer offers face-to-face interaction, possible expertise and an amount of trust-building, initial purchases from online dealers risk consuming products of substandard quality, fraud or identity theft. However, the Internet also offers opportunities for globally dispersed individuals to build relationships and share experiences and knowledge on product types and administration techniques. For example, our research also highlighted virtual relationships being formed on social networking sites, where a certain level of trust was built between buyer and seller over time, which in some respects mimics offline mentoring relationships and distribution patterns we found during the offline ethnography.

Discussion

The preceding analyses allow some more systematic observations regarding the nature of the steroid market in the UK. The first observation emerged from the data as an undeniable contextual factor shaping steroid use and supply in the context of our immediate offline ethnographic research: that the steroid market is embedded in local cultures of masculinity (see Fussell, 1991; Pope *et al.*, 1999) and masculine images of physical prowess and stoicism that have been defined and re-defined over time alongside cultural, political and economic changes.

The northeast of England, the context of our offline ethnographic research and a setting for a disproportionately high percentage of steroid users, was for much of the 19th and 20th centuries dominated by heavy industries such as mining, shipbuilding and steelwork (Byrne, 1989). Young working-class men were socialised to believe that hard physical labour was the archetypal male activity. In periods of recession, unemployment meant an inability to provide for one's family and to be independent; qualities that were at the very core of masculine identity. From the late 1970s onwards, the seismic changes that occurred in the global economy, most apparent in the North in the shift from industrialism to a low-wage service economy, bypassed working-class men who did not possess the social and cultural capital required to integrate into the new economy. In the absence of employment and physical labour, working-class men became restricted, unable to acquire a positive self-image, higher status and some kind of cultural authority (Winlow, 2001; see also Winlow and Hall, 2013).

This climate of socio-economic insecurity was accompanied by a period of mass marketisation, which also impacted on working class men's identities and laid down the conditions for a diversion of industrial machismo into commercialised activities, practices and 'rituals'. In these locations anxieties about body image are now widespread and medicalised, and a muscular body commodified. The importance some men who use steroids attach to their ability to display an overly muscular body has in some respects replaced the symbolism attached to the physical prowess required for work in Britain's former industrial heartlands. It has become the symbol of one's ability to protect himself, a commodity and currency in the legitimate and illegitimate economy and, in the absence of employment opportunities, embodies "hegemonic idealisations" (Bridges, 2009: 83). Therefore, our analysis of steroid trafficking in the UK cannot be separated out from the environmental and socio-cultural specificities we found in these local spaces of supply and use.

In relation to the supply chain, on the one hand, as touched on above, we have found that the patterns of trafficking of this specific type of substance are patently conditioned by its embeddedness (Kleemans and van de Bunt, 1999; see also Maycock and Howat, 2007) in the gym/bodybuilding scene and that this greatly affects relations between actors in the business. On the other hand, particularly in light of the increasing role played by the Internet

and e-commerce, actors in the trade may not be involved in the scene and are simply supplying steroids alongside a number of other substances as part of a wider drugs supply scheme (see Paoli and Donati, 2014). Overall we found the business is decentralised, highly flexible with no hierarchies, and open to anyone willing to either order the merchandise online, or travel to producing countries and obtain steroids in bulk from legitimate manufacturers.

The same fragmentation and volatility that characterises the above environment also engenders a chaotic configuration of positions in the market, since one typically encounters a multitude of individuals likely to drift between legality and illegality (see Hobbs, 2013), online and offline, use and supply. The relatively discreet nature of the steroid market makes it open and competitive to anyone with suitable local contacts or the ‘technical’ knowledge needed to obtain the merchandise online. Often those who deal in small quantities of steroids tend to enjoy the added status they receive among their friends, and by using their own consumption as a platform in which their business operates, they are at once small-time entrepreneurs *and* brokers of ‘masculinity’. A similar trend of non-commercial elements in an illegal market has been identified in other illicit drug markets. Sandberg (2012), for instance, notes that in the cannabis market there is a *non-commercial* cannabis culture that co-exists with a general market culture (see also Hammersvik *et al.*, 2012). Moreover, Coomber and Moyle (2013) have introduced the concept of ‘social supply’ to describe drug transactions exclusively done between friends and acquaintances that are not commercially motivated. Rather than pertaining to the general dogma that criminal entrepreneurs strive for profits only, our data also suggests that there are instances in which illegal entrepreneurs’ social environments and the presence of similar-thinking individuals (Hall *et al.*, 2008) has a formative effect on their involvement in this criminal market. Therefore, as van Duyn (2000) contends, despite the importance of financial issues in illegal markets, including in this case trafficking in illicit steroids, organising crime cannot be understood by focusing exclusively on monetary motives.

By merging data collected in both virtual and physical contexts, we have found a range of broader economic, cultural and technological changes are interacting with deeper psycho-social factors in a number of complex ways to increase steroid use and supply. This demands future research at local, national and international levels offering further empirical breadth and analytical depth to advance our understanding of the complex motivations and social harms associated with the illicit steroid trade.

References

Advisory Council on the Misuse of Drugs (2010) *Consideration of the Anabolic Steroids*.

Available online at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/119132/anabolic-steroids.pdf

Atkinson, R. & Flint, J. (2004) ‘Snowball sampling’. In Lewis-Beck, M.S., Bryman, A., Futing Liao, T. (eds) *The sage encyclopaedia of social science research methods, vol 1*. (pp 1043–1044) Thousand Oaks, Ca.: Sage

Australian Crime Commission (2013) *Organised Crime and Drugs in Sports*. Canberra: ACC

Bridges, T.S. (2009) ‘Gender Capital and Male Bodybuilders’, *Body & Society*, 15(1), 83-107

BSC (2015) 'Statement of Ethics 2015'. Available online at:
<http://britsoccrim.org/new/?q=node/22>

Bunsell, T. (2013) *Strong and Hard Women*. London: Routledge

Byrne, D. (1989) *Beyond the Inner City*. Milton Keynes: Open University Press

Cho, J. & Trent, A. (2006) 'Validity in qualitative research revisited', *Qualitative Research*, 6(3), 319–340

Coomber, R. and Moyle, L. (2013) Beyond drug dealing: developing and extending the concept of 'social supply' of illicit drugs to 'minimally commercial supply', *Drugs: Education, Policy and Prevention*, 21(2), 157-164

Dorn, N., Murji, K. and South, N. (1992) *Traffickers*. London: Routledge

DrugScope (n.d) 'Anabolic Steroids'. Available online at:
<http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/anabolicsteroids>

Dunne, A., Freeman, O. and Sherlock, R. (2006) 'Over-Conformists to Gender Norms', *Gender and Consumer Behaviour*, 8, 328-340

Fielding, N. Lee, R M. and Blank, G. (Eds) (2008) *Online Research Methods*. London: Sage

Fincoeur, B., van de Ven, K. & Mulrooney, K.J.D. (2014) 'The symbiotic evolution of anti-doping and supply chains of doping substances', *Trends in Organised Crime*. DOI 10.1007/s12117-014-9235-7

Fussell, S. (1991) *Muscle*. NY: ORIM

Gibson, O. (2013) 'Doping', *The Guardian*, February 16, pp.1-3

Hall, A. and Antonopoulos, G.A. (2015) 'License to Pill: Illegal Entrepreneurs' Tactics in the Online Trade of Medicines'. In van Duyne, P.C., Maljevic, A., Antonopoulos, G.A., Harvey, J. & von Lampe, K. (eds) *The Relativity of Wrongdoing*. (pp.229-252) Nijmegen: WLP

Hall, S., Winlow, S. and Ancrum, C. (2008) *Criminal Identities and Consumer Culture*. Cullompton: Willan

Hallsworth, L., Wade, T. and Tiggemann, M. (2005) 'Individual differences in male body-image', *British Journal of Health Psychology*, 10(3), 453-65

Hammersvik, E., Sandberg, S. & Pedersen, W. (2012) 'Why small-scale cannabis growers stay small: Five mechanisms that prevent small-scale growers from going large scale', *International Journal of Drug Policy*, 23(6), 458- 464

Hobbs, D. (2013) *Lush Life*. Oxford: Oxford University Press

Hobbs, D. & Antonopoulos, G.A. (2014) 'How to Research Organised Crime'. In Paoli, L. (ed.) *The Oxford Handbook of Organised Crime*. (pp.96-117) New York: Oxford University Press

Home Office (2013) *Drug Misuse: Findings from the 2012 to 2013 Crime Survey for England and Wales*. Available online at: <https://www.gov.uk/government/publications/drug-misuse-findings-from-the-2012-to-2013-csew/drug-misuse-findings-from-the-2012-to-2013-crime-survey-for-england-and-wales>

Jewkes, Y. (2011) 'The Media and Criminological Research'. In Davies, P., Francis, P. & Jupp, V. (eds) *Doing Criminological Research*. (pp.245-261) London: Sage

Kanayama, G., Hudson, J.I., & Pope Jr. H.G. (2008) 'Long-term psychiatric and medical consequences of anabolic-androgenic steroid abuse', *Drug and Alcohol Dependence*, 98, 1–12

Keane, H. (2005) 'Diagnosing the male steroid user', *Health*, 9(2), 189-208

Kean, J. (2012) *Anabolic-Androgenic Steroids*. Unpublished MSc Criminology dissertation, Middlesbrough: Teesside University

Kleemans, E.R. & van de Bunt, H. (1999) 'The social embeddedness of organised crime'. *Transnational Organised Crime*, 5(1), 19-36

Kraska, P.B., Bussard, C.R., & Brent, J.J. (2010) 'Trafficking in bodily perfection: Examining the Late-Modern Steroid Marketplace and Its Criminalization', *Justice Quarterly*, 27(2), 159-185

Lavorgna, A. (2015) 'The online trade in counterfeit pharmaceuticals', *European Journal of Criminology*, 12(2), 226-241

Leach, C. (2003) *Muscle*. London: Blake

Leach, C. (2009) *The Rise of the Footsoldier*. London: Blake

Levi, M. (2015) 'Qualitative Research on Elite Frauds, Ordinary Frauds and Organised Crime'. In Miller, M. and Copes, H. (eds.) *Handbook of Qualitative Criminology*. (pp.215-235) NY: Routledge

Lindberg, K. (2006) 'Organised Crime Controls Doping Trade', *Play the Game*, 34-35

Maguire, M. (2000) 'Researching street criminals: a neglected art'. In King, R. and Wincup, E. (eds) *Doing research on crime and justice*. (pp.121-152) New York: Oxford University Press

Martin, D.M. (2007) 'Steroids on the Job', *Occupational Health & Safety*, August, <http://ohsonline.com>

Mather, V. (2015) 'Key Figures in the Russian Doping Scandal', *The New York Times*, November 9. Available online at:

http://www.nytimes.com/interactive/2015/11/09/sports/russia-doping-scandal-key-figures.html?_r=0

Matrix Knowledge Group (2007) *The Illicit Drug Trade in the UK*. Available online at: <http://www.homeoffice.gov.uk/rds/pdfs07/rdsolr2007.pdf>

Maycock, B.R. & Howat, P. (2007) 'Social capital: implication from an investigation of illegal anabolic steroid networks', *Health Education Research*, 22, 854-863

McVeigh, J., Bates, J. & Chandler, M. (2015) *Steroids and Image Enhancing Drugs*. Liverpool: Centre for Public Health

Monaghan, L.F. (2001) *Bodybuilding, Drugs and Risk*. London: Routledge

Monaghan, L.F. (2002) 'Vocabularies of Motive for Illicit Steroid Use Among Bodybuilders', *Social Science and Medicine*, 55, 695-708

Monaghan, L. and Atkinson, M. (2014) *Challenging Myths of Masculinity*. Aldershot: Ashgate

Moyle, L. & Coomber, R. (2015) 'Earning A Score: An Exploration of the Nature and Roles of Heroin and Crack Cocaine 'User-Dealers'', *The British Journal of Criminology*, doi: 10.1093/bjc/azu087

Musshoff, F., Daldrup, T. and Ritsch, M. (1997) 'Black Market in Anabolic Steroids', *Journal of Forensic Sciences*, 42(6), 1119-1125

Paoli L. (2012) 'Doping and Anti-Doping', *European Journal of Crime, Criminal Law and Criminal Justice*, 20, 231-238

Paoli, L. and Donati, A. (2014) *The Sports Doping Market*. New York: Springer

Pearson, G. and Hobbs, D. (2001) *Middle market drug distribution*. London: Home Office

Pope, H. (1988) 'Anabolic-Androgenic Steroid Use Among 1,010 College Men', *Physician and Sports Medicine*, 16(7), 75-77,80,84

Pope, H. and Kanayama, G. (2004) 'Bodybuilding's Dark Side', *Current Psychiatry*, 3(12), 12-20

Pope, H., Olivardia, R., Gruber, A., and Borowiecki, J. (1999) 'Evolving Ideals of Male Body Image as Seen Through Action Toys', *International Journal of Eating Disorders*, 26(1), 65-72

Pope, H., Kanayama, G., Ionescu-Pioggia, M. and Hudson, J. (2004) 'Anabolic Steroids Users' Attitudes Towards Physicians', *Addiction*, 99(9), 1189-1194

Rapley, T.J. (2001) 'The art(fullness) of open-ended interviewing: some considerations on analysing interviews', *Qualitative Research*, 1(3), 303-323

- Rodham, K. and Gavin, J. (2006) 'The ethics of using the Internet to gather qualitative research data', *Research Ethics Review*, 2(3), 92-97
- Rumsby, B. (2014) 'Organised Crime Controls 25 per cent of World Sport, Warns WADA Chief, David Howman', *The Telegraph*, October 6
- Sandberg, S. (2012) 'The Importance of Culture for Cannabis Markets: Towards an Economic Sociology of Illegal Drug Markets'. *British Journal of Criminology*, 52(6), 1133-1151
- Seale, C. (1998) *Researching society and culture*. London: Sage
- Spapens, T. (2007) 'Interaction Between Organised Crime and Law Enforcement', *CIROC Newsletter*, 7(1), 4-5
- Spellwin, G. (2004) *The Secrets of Mail Order Steroid Success*. Available online at: www.elitefitness.com
- Sweitzer, P.J. (2004) 'Drug Law Enforcement in Crisis: Cops on Steroids', *DePaul Journal of Sports Law & Contemporary Problems*, 2(2), 193-222
- The Guardian (2013) 'Europol: Investigators Identify 380 Football Matches', *The Guardian*, February 4
- Turvey, B.E. and Crowder, S. (2015) *Anabolic Steroid Abuse in Public Safety Personnel*. San Diego, Ca.: Elsevier
- UNODC (2013) *Criminalisation Approaches to Combat Match-Fixing and Illegal/Irregular Betting*. Vienna: UNODC
- van Duyne, P.C. (2000) 'Mobsters are human too', *Crime, Law and Social Change*, 34, 369-390
- Walker, P. (2015) 'Spiralling anabolic steroid use leaves UK facing health timebomb', *The Guardian*, June 19
- Webber, C. and Yip, M. (2013) 'Drifting on and off-line: Humanising the cybercriminal'. In Winlow, S. and Atkinson, R. (eds) *New Directions in Crime and Deviancy*. (pp.191-205) London: Routledge
- Williamson, D.J. (1993) 'Anabolic Steroid Use Among Students at a British College of Technology', *British Journal of Sports Medicine*, 27(3), 200-201
- Winlow, S. (2001) *Badfellas: Crime, Tradition and the New Masculinities*. Oxford: Berg
- Winlow and Hall (2013) *Rethinking Social Exclusion: The End of the Social?* London: Sage
- Yar, M. (2014) *Crime, Deviance and Doping*. Basingstoke: Palgrave
- Yesalis, C.E. and Bahkre, M.S. (2002) 'History of Doping in Sport', *International Sports Studies*, 24(1), 42-76

