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The barriers to illegal anabolic steroid use

BRUCE MAYCOCK, & PETER HOWAT

Western Australian Centre for Health Promotion Research, Perth, Western Australia

Abstract
This paper summarizes the self-reported barriers that men overcame prior to initiating illegal anabolic steroid use, and the associated weakening of social controls that restrict anabolic steroid initiation. Data was collected via participant observation of 147 anabolic steroid users and previous users, 98 in-depth interviews with 42 anabolic steroid users and 49 in-depth interviews with 22 illegal dealers. Additional data came from interviews and eight focus groups with gym instructors, personal trainers and health workers, and the monitoring of policy changes and media reports relating to anabolic steroids.

The identified barriers included, coping with potential stigma, gathering of credible information and overcoming structural and resource barriers including developing the skills required to administer the drug and gaining a supply source. As these barriers were overcome there was a reduction in the social controls that inhibit the initiation of illegal anabolic steroid use. By understanding the interaction between potential users, social controls and these barriers it maybe possible to strengthen the barriers and hence delay or halt the progression to anabolic steroid use. The paper suggests several demand- and harm-reduction strategies that may assist this process.

Introduction

Anabolic steroid use is reported to be increasing in some parts of the world and amongst some age groups. Johnston, O'Malley, Bachman & Schulenberg (2004) identified a steady increase (1992–2002) in self-reported anabolic steroid use amongst adolescents in the USA with reports of up to 6.2% of 12 grade males having used. They also noted variations related to region and parent education. In a study of Swedish youth Nilsson, Baigi, Marklund & Fridlund (2001) analysed the results of a questionnaire completed by 5827 pupils. They found that among male adolescents 16 and 17 years old 3.6% and 2.8%, respectively, had misused androgenic anabolic steroids. Similar results have been found in studies in Australia (Handelsman & Gupta, 1997), South Africa (Lambert, Titlestadt & Scwellnus, 1996), the United Kingdom (Metropolitan Borough of Sefton, 1998; Lenehan, 2003), Canada (Melia, Pipe & Greenberg, 1996), and France (Laure, 1998).

While population-based prevalence surveys may indicate a relatively low level of use (0.3% in Australia; Australian Institute of Health and Welfare, 2003) gym-based surveys indicate a range of levels from 0–58% depending upon the gym surveyed (Chee, Kuan,

Correspondence: Bruce Maycock, School of Public Health Curtin University of Technology, GPO Box U1987, Perth, Western Australia, 6845, Australia. Tel: 61 8 9266 7988. Fax: 61 8 9266 2958. E-mail: b.maycock@curtin.edu.au

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Rynn & Teoh, 1994; Lenehan, Bellis & McVeigh, 1996; Grace, Baker & Davies, 2001). These studies have identified areas of high use and the characteristics of gymnasiums where this use is found.

By consuming anabolic steroids individuals are increasing their risk of a range of physical, social and psychological harms. Psychologically, anabolic steroid use has been linked to mood disorders, suicide ideation, depression, violence, mania and dependency (Brower, 2002; Corrigan, 1996; Malone, Dimeff, Lombardo & Sample, 1995; Maycock & Howat, 1999; Pope & Katz, 1994, 2003). Potential physical harms can include the development of gynaecomastia (enlargement of the breasts) in males, transient infertility, testicular atrophy, tendon rupture, skin rashes, acne, growth of facial and body hair, oedema (water retention), jaundice, changes in libido, increased aggression and potential for HIV or hepatitis contraction if needles or vials are shared (Bolding, Sherr, Elford, 2002; Grace et al., 2001; Lenehan, 2003; Liow & Tavares, 1995). Chronic side effects can include liver disease, cerebral haemorrhage, cardiovascular disease and sterility (Kennedy & Lawrence, 1993; Moss-Newport, 1993; Nieminen et al., 1996).

While there has been considerable research exploring the motivations and reasons for initiating anabolic steroid use (Grace et al., 2001; Kanayama, Pope, Cohane & Hudson, 2003; Labre, 2002; Maycock & Howat, 1999) the authors could find no papers that specifically examined the barriers that men had to overcome as they initiated anabolic steroid use. This paper discusses these barriers as identified by the men themselves, and reviews potential strategies that may delay or halt anabolic steroid use.

Data collection and analysis

The data used in this paper were collected in Perth, Western Australia over a five-year period (1996–2000). Anabolic steroids are restricted substances in Australia. Users of illegal (black market) anabolic steroids risk criminal sanctions, though the penalties vary between Australian states. Penalties differ for use of veterinary products; self-administration without a prescription; possession of S4 substances (an S4 substance is a substance classified as a Schedule 4 poison, which includes substances and preparations for therapeutic application the use of which requires professional medical, veterinary or dental management or monitoring); possession and supply; and administering to others. Western Australia generally has the harshest penalties with up to 25 years jail or $100,000 fine for possession of S4 substances (Australian Sports Drug Agency, 1992). Within Western Australia between 1991 and 1997 an average of 30 drug charges per year were laid in relation to illegal anabolic steroid use (West Australian Police Service, 1991–1997).

Men were purposively sampled from all sections of the anabolic-steroid-using subculture and from individuals at different stages of anabolic steroid use. This included men who were initiating use, those who had just initiated use and those who had ceased use. A total of 98 in-depth interviews with 42 anabolic steroid users and 49 interviews with 22 illegal distributors and dealers of anabolic steroids were conducted. Ten subjects were followed and interviewed longitudinally over a three-year period. The average age of the subjects was 31 years with the range 15–42 years. All subjects were engaged in weight training and most were employed. Additional data came from participant observation (May, 2003) of 147 anabolic steroid users, interviews and eight focus groups with gym instructors, personal trainers, and health workers, and the monitoring of policy changes and media reports relating to anabolic steroids.

All data were triangulated to enhance integrity, verity, and reliability (Gifford, 1996; Strauss & Corbin, 1990). This was done via a constant comparative method that involved

comparing new data to data already collected so as to check for convergence or divergence of information. Other techniques, such as developing researcher sensitivity (Strauss & Corbin, 1990), audio recording all interviews and direct transcription were also employed to minimize the problems of data collection bias, and data integrity. Data were managed by the Non-Numerical, Unstructured, Indexing, Searching and Theorizing computer package (QSR Users Guide, 1995) and analysed from a symbolic interactionist perspective (Becker, 1972; Blumer, 1969; Charon, 1998). The construction of categorical data was monitored and verified by another experienced social-science researcher. While steps were taken to ensure that the data provided were valid, the interviewed sample was not a random sample of anabolic steroid users. Hence caution is needed when attempting to generalize the findings despite saturation being reached on all analytical elements.

Results

For most of the interviewed sample the decision to start anabolic steroid use took several years to make. On average the interviewed sample had been weight training for three years prior to initiating anabolic steroid use. However, 11 of the interviewed subjects initiated use within one year of starting weight training. These individuals all had a prior association with an anabolic steroid user. Individuals gave a wide range of reasons for initiating use. Consistent with other studies the interviewed subjects identified the need for increased size, strength and improved body image as reasons for starting weight training and anabolic steroid use (Grace et al., 2001; Kanayama et al., 2003; Labre, 2002). They also identified the need to belong, increased self-esteem, social status and security as underlying reasons for starting weight training and eventual anabolic steroid use (Maycock & Howat, 1999). Anabolic steroid consumption was seen as a way of achieving these goals.

Reasons for use

> The idea of being big, was attractive, being big was a deterrent by itself. I wanted to get big as fast as possible, the bigger the better. (Fred, aged 31, started anabolic steroid use aged 24, for safety and personal security reasons)

The men interviewed were motivated to use anabolic steroids by the need to be bigger, better shaped and to be stronger. A large number of the interviewed sample (68%) cited the intention to compete, the belief that others were using and the need to improve existing performance as reasons why they investigated initiating use. It should be noted that only seven of the 42 men interviewed competed above local level in competitions.

> I trained my butt off and watched others I used to beat make bigger improvements. I knew they were on gear, if I wanted to compete I needed gear. (Andrew, aged 26, track and field athlete)

Four of the interviewed sample indicated that complacency by trainers and coaches contributed to their decision to consider use. The failure of coaches and officials to investigate large increases in body mass and strength achieved by other competitors contributed to their decision to explore use and reduced their concern about potential social sanctions. This observation was further validated by data obtained through participant observation. On several occasion the researcher trained with national or international sportsmen who had just initiated anabolic steroid use. One of these subjects gained 12 kg of body weight after his first course of anabolic steroids. His maximal bench press increased from 140 kg to

185 kg in a twelve-week period. While this occurred during the off-season at no time did he receive any negative comments from coaches.

The entire interviewed sample initiated anabolic steroid use as a way of compensating for a perceived inadequacy. The perceived inadequacies included being small, being fat, endomorphic, ectomorphic, less strong, less well-shaped, less virile, less attractive, not belonging, feelings of being unsafe or threatened, and compensating for a physical impairment, such as an injury. The following quote is typical of the feeling expressed by the long-term users, who initiated use to improve body image, self esteem and social status.

> You are talking to a guy who was little with freckles at school. Everybody who is weight training was little once, or they wouldn't be doing it. When I was 21, I was still 68 kg. I chipped away for ten years, 3 kg a year. Most people still have the small man inside, all the time . . . . (Simon, aged 40, started using anabolic steroids aged 25, previous national level power lifter)

Barriers to initiating use

Initially many of the respondents were hesitant about starting anabolic steroid use. They expressed concern about the social stigma of being an anabolic steroid user, the potential health consequences, the mode of administration and the cost. Specifically, the barriers were obtaining credible information on the effects of the drugs; obtaining the drugs; learning how to administer the drugs; obtaining implements for administering the drugs and dealing with the potential social stigma. The issue of legality was not of great concern for the majority of the interviewed sample even though they were living in the state of Western Australia, which as discussed had some of the most severe criminal penalties in Australia. Few of the interviewed subjects were aware of the potential legal penalties associated with anabolic steroid use and none, including the personal trainers or gym instructors, were aware that the West Australian police consistently laid over 30 charges per year related to anabolic steroids possession (West Australia Police Service, 1992–1998).

Overcoming the barriers

The anabolic steroid dealers and other users were the primary source of information and the major resource used in overcoming the barriers to anabolic steroid use. Dealers often provided information about the drugs, how to use them, what to expect from them, their potential side effects, how to detect bogus drugs, where to obtain needles and swabs, how to avoid self-harm and how to deal with public ridicule.

Obtaining information

Prior to initiating use all of the men interviewed undertook information searches. These included talking to friends, gym trainers and instructors, anabolic steroid users and dealers, reading magazines, underground anabolic steroid manuals and medical journals and occasionally talking to medical practitioners. Three of the interviewed sample conducted very sophisticated searches, which involved reading medical journals, contacting doctors and other health practitioners (physiotherapists, nurses, natural therapists), government departments, and talking to users and previous users. Potential users sought health and general anabolic steroid information, about long- and short-term health effects and the reversible and non-reversible effects of the drugs, information on how the drugs were

best administered, the best types of anabolic steroid to use and the penalties if they got caught using.

As potential users were preparing to initiate anabolic steroid use they usually sought out more specific information. This included information about the different types of anabolic steroids, how they affect the human body, the rates and amounts to use, the combination of anabolic steroids to use (stacking) and the length of time different anabolic steroids stay in the user's system. Potential users wanted to know how to avoid detection, what other drugs to take in conjunction with anabolic steroids and how to detect bogus anabolic steroids. In general the interviewed subjects were disappointed with the available educational material, with some saying it was government propaganda that lacked credibility. The main reason for this belief was that the material failed to acknowledge that anabolic steroid use increases performance, strength and size.

Credible information was seen as information coming from someone they knew and who had used anabolic steroids for an extended period of time. Usually this person was their dealer. In most cases doctors were not seen as credible sources of information as they could not provide the specific information potential users wanted. As Neil said, when discussing the information he received from doctors:

> They were giving me their views, especially when they haven't used it themselves, they are getting it out of journals. So they don't know from personal use. (Neil, aged 25, started anabolic steroid use at 23, national level rugby player)

Over 60% of the interviewed sample reported receiving incorrect information from 'credible' sources that resulted in adverse physical or social side effects. These included gynaecomastia, testicular cysts, immune-system impairment and muscular or joint injury. Adverse social effects included, mood changes, increase aggression and relationship problems. On many occasions dealers tried to trivialize the potential risks by giving the perception that effects didn't matter:

> Marathon runners get blisters and shin splints, body builders get shrunken testes and acne, so what! (Tony, dealer, aged 40 with over 35 clients)

Making the right contacts

Non-users who progressed to using anabolic steroids were strongly socialized into the weight-training subculture. They were initiated into a group, taught about the subculture, how to use the drug and how to deal with the stigmas associated with getting bigger. This process was usually accompanied by changes in their attitude towards anabolic steroids and what the drug meant for them. Particularly obvious was the reduction in the social controls related to potential stigma and social sanctions. As weight trainers mixed and socialized with anabolic steroid users they gained different insights related to the benefits of anabolic steroids, the avoidance of potential social sanctions and the harms associated with anabolic steroid use. The socialization process was a vital part of moving into illegal anabolic steroid use, as it was through this process that weight trainers were able to overcome the other barriers.

Obtaining a supply source

A significant barrier that users had to overcome was obtaining a supply source. Usually if a new weight-trainer wanted to obtain anabolic steroids they needed to be able to gain access to one of the distributors, establish contact and develop a relationship. Unless the weight

trainer was already known to the dealers this process took time as the dealer often undertook a risk assessment of the potential user. This was especially true for those dealers higher up the hierarchy. All of the dealers were significantly involved in the socializing of new users. When users were asked to describe their dealers they often responded that they were great blokes, men to look up to. Yet within the 22 dealers interviewed there was considerable variation in knowledge levels, attitudes towards dealing anabolic steroids and their own anabolic steroid consumption. Eight of the dealers reported using over 20 different types/brands of anabolic steroids during their own using careers. Some dealers were conservative in their approach to distributing anabolic steroids and the advice they gave, one refused to deal to women as he considered it unethical, while others advised users to take large doses and dealt to both men and women. Of the top five dealers three dealt in non-performance or image-enhancing illicit drugs such as cannabis, amphetamines, growth hormone, and dehydroepiandrosterone (DHEA).

Social and relational barriers

Potential users were aware of the negative attitude that the community expressed towards anabolic steroid consumption. These negative attitudes were very evident in the press (as measured by the collation of media stories in two local newspapers). Over a three-year period (1996–1998), 94% of anabolic-steroid-related articles portrayed anabolic steroids in a negative way. This negative perception was often reinforced by comments made by family and friends and supported by a population-based study in which only 4% of Australian males and 1% of females said that regular use of anabolic steroids for non-medical purposes by adults was acceptable (Australian Institute of Health and Welfare, 1999). Paradoxically, the interviewed subjects often gained positive reinforcement about the changes in their body appearance from significant others when they initiated weight training and started to improve their physical condition.

The social stigma attached to anabolic steroid use is such that over 90% of the interviewed anabolic-steroid-using sample experienced public ridicule at some time. This ridicule came not only from the general public, but also from family, non-steroid-using friends, and health professionals, such as chemists, doctors and nurses, which was in stark contrast to the praise that they received when they initiated weight training.

When initiating use the interviewed subjects described how they planned to deal with the potential public ridicule and comments from friends and family. In some cases this resulted in the person changing friendship networks and lying to family and friends. Only a small number of those who initiated use told close family members. The rest (over 85%) adopted strategies designed to minimize the risk of detection. These included increasingly mixing with anabolic steroid users and other weight trainers, changing the way they dressed, hiding the anabolic steroids at a friend's home and avoiding places where they might be ridiculed or noticed. The increased social contact with other weight trainers and anabolic steroid users included changes to eating and living patterns. Often very intense relationships with training partners were developed, which some subjects likened to a marriage.

The majority of men saw combining the use of anabolic steroids and a relationship with a female as problematic. Generally the men expressed the need to hide their use from their partner. In the following excerpts 'Mad' explains how he never tells females about his use:

> It is not the type of thing you go telling people because they don't understand, particularly women. You will never convince a woman what you are doing is for a constructive reason ... you just don't talk about it, and if it comes up and they ask you, you just deny it. It is just best kept in the confines of the boys' locker room. (Mad, doorman/kick boxer aged 23, started using at 16 years of age)

Obtaining injecting skills and equipment

One hundred percent of the interviewed sample had injected anabolic steroids at some time and none reported any sharing of needles. However, some had shared vials. All identified that the act of self-injecting was a barrier that they had to overcome. Nearly half of the dealers interviewed regularly provided injecting equipment for their clients and many injected new users until they were able to inject themselves. If the client appeared to know what they were doing the dealer often let them continue. However, on one occasion a client who said he knew what he was doing said, 'So, I just find a vein then'. Though the dealer corrected this misunderstanding, it did indicate that a client who felt that they knew what to do actually had little knowledge about anabolic-steroid administration, which could have had potentially harmful consequences. One example of harm that the investigator came across was in a subject called 'Young'. 'Young' was a track athlete who started using anabolic steroids at the age of 15. Due to his lack of knowledge, lack of supervision and social support and his extreme desire for secrecy he adopted poor injecting practice and eventually developed a significant abscess that required surgery.

Discussion

This paper has briefly described the self-identified barriers that users overcame prior to and while initiating illegal anabolic steroid use, and the reduction in social controls that assisted this process. The men in this study identified the intention to compete, the need to compensate for an inadequate body image, the need to belong, the need to feel secure and the desire for increased social status as reasons for starting anabolic steroid use. These socially desirable benefits outweighed the potential social and physical harms associated with the use of these drugs. It raises questions about the other ways in which these men can achieve their esteem goals. The following suggestions could be investigated as part of a comprehensive demand- and harm-reduction approach. As part of this approach the provision of specialized counselling and information could ameliorate, delay or reduce anabolic steroid uptake. This may be especially relevant for those who initiate use due to the need to improve body image, belonging, feelings of security or social status.

The fact that men did not view education material from government departments as credible is consistent with other studies (Lenehan, 2003) and should be of concern to these authorities. This research indicates that potential users often seek general information as part of the preliminary decision-making process and then more specific information once the decision to progress to anabolic steroid use is made. Publications providing these two types of information should be developed. The first would contain realistic summaries of the health consequences and the other information potential users have identified. It may be possible to use gyms as potential distribution points for this information. As information coming from previous users is seen as credible, the use of role models and testimonials that counter the view currently being disseminated by dealers should be considered and tested with the target audience. Consideration should be given to including techniques to counter dealers' attempts to normalize anabolic steroid use and correction of the myths that dealers are 'great blokes' who give accurate and correct information.

Through the socialization process, social controls inhibiting anabolic steroid use were reduced and new users were taught how to use the drug, though as identified the majority of interviewed subjects experienced an adverse incident in relation to their health as a result of their anabolic steroid use. The barriers they identified, such as negative societal perception and limited supply, provide some evidence that current supply reduction strategies

make the progression to anabolic steroid use difficult. However, the issue of legality was not a major consideration for most of the men sampled and none of the interviewed sample, personal trainers or gym instructors were aware of the level of enforcement. Law enforcement agencies should give consideration to making this information more readily available and to incorporating it into education programs. The negative press articles related to anabolic steroids reinforced the social undesirability of anabolic steroid use and provided a barrier to those considering using. However, once weight trainers became socialized into a group that contained anabolic steroid users they quickly dismissed this issue and developed strategies to avoid social sanctions. Unfortunately, this often resulted in them being unwilling to discuss the issue with health professionals and contributed to their social isolation. The perceived lack of credibility of general practitioners and others limits the likelihood of users initiating contact with these professionals prior to starting use. In accordance with Lenehan (2003), this study identified the need for specialized training for medical practitioners as part of a harm-reduction approach.

With regard to athletes, the socialization process that occurs in some gyms and knowledge of anabolic steroid users is an essential part of breaking down the social controls that restrict anabolic steroid use. Many studies have identified the characteristics of gymnasiums more likely to have high levels of anabolic steroid use (Grace et al., 2001; Lenehan et al., 1996). Consideration should be given to specialized training programs and provision of supervision so as to limit the opportunity of athletes to mix with anabolic steroid users. Lenehan (2003) identified numerous sports where officials and coaches appear to have colluded with athletes to ignore anabolic steroid use. This is consistent with the findings in this study where the issue of potential complacency by trainers and coaches contributed to anabolic steroid initiation. The development of monitoring mechanisms at non-elite-level sport may help to alleviate this issue.

Conclusions

This paper has described a range of barriers that anabolic steroid users overcame prior to and while initiating use. By strengthening the barriers to illegal anabolic steroid use it may be possible to reduce the onset and decrease the number of individuals using anabolic steroids.

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