"It is safe to use if you are healthy": A discursive analysis of men's online accounts of ephedrine use.

Abstract

Ephedrine use in sport is a common practice among men (Magkos & Kavouras, 2004). Less well-understood is men's use of ephedrine as a slimming aid. Arguably fuelled by the 'war on obesity' and the drive for muscularity (Grogan, 2008; 2010) the internet has become awash with claims presenting ephedrine as safe. The use of this psychoactive substance can have acute health implications such as tachycardia, arrhythmias and cardiovascular disease (European Centre for Drugs and Drug Additions, 2013). Given the tension between health risk and ephedrine-induced weight loss, how men justify their use of ephedrine becomes an important question. In particular, we wished to analyse how male users talked to others about ephedrine in discussions linked to an online version of a popular men's magazine. Because we were particularly interested in how men accounted for their ephedrine use, we used discourse analysis to examine their posts (Potter, 1996). In analysing the data, we noted that a "community of practice" (e.g. Ba, 2001) was constructed online categorising legitimate (and barred) users, emphasising the benefits of ephedrine, and downplaying health-defeating side effects. Our analysis has clear implications for engaging men who use ephedrine in health promotion interventions.

Introduction

Ephedrine has been used as an asthma treatment since the 1930s, and is most commonly used in decongestants and cold medicines as ephedrine hydrochloride (National Health Service (NHS), 2014). In the cardiovascular system, ephedrine increases heart rate and can lead to a sustained rise in blood pressure. In the lungs, ephedrine acts via the beta

adrenergic receptors to relax bronchial smooth muscle, and is used medically in small doses as a decongestant and for the temporary relief of shortness of breath due to bronchial asthma (NHS, 2014). Ephedrine is a central nervous system stimulant, so also improves mood and alertness. At high doses it can cause anxiety, restlessness, and insomnia, similar effects to amphetamines, and high and sustained use can lead to myocardial infarction and stroke (Calfee & Fadale, 2006; Medicinenet.com, 2014).

Since the 1990s, ephedrine has been promoted as a way to lose weight, and is marketed heavily on bodybuilding websites in spite of conflicting evidence on effectiveness and the unknown health risks of long-term, heavy use. Although most research on men's body image has focused on desire for larger and more defined muscles, which has been linked to drugs with muscle-building properties such as anabolic steroids (Fawkner, 2012; Hale & Smith, 2012; McCreary, 2012), there is good evidence that most men and adolescent boys currently desire to look lean as well as muscular (Grogan & Richards, 2002; Ricciardelli, 2012). Ephedrine tends to reduce appetite, promotes burning calories, and tends to target fat while saving lean muscle, making it very popular among bodybuilders who use it in 'cutting' phases ahead of competition when wishing to reduce fat while retaining muscle (Kanayama, 2001; Steroidal.com, 2014). Compounds of ephedrine available over the internet tend to include caffeine and may include aspirin (known as an ephedrine-caffeine-aspirin, or ECA stack), and ephedrineweb.com (2014) cites studies where men have lost 145 lb in 13 months using ECA stacks.

Incidence of ephedrine use for weight loss is difficult to determine as many men buy ephedrine from nutrition, weight control, or body building websites. However, use of dietary supplements by adult men and male adolescents for appearance reasons is common (Calfee & Fadale, 2006; Ricciardelli, 2012). Kanayama et al. (2001), in a large scale

survey of 511 clients in five US gyms, found that 25% of men had used ephedrine within the last three years, and Ricciardelli (2012) estimates lifetime prevalence of ephedrine use in men at 4.5%.

Clearly men's current reasons for ephedrine use are likely to be complicated, given cultural pressure to be large as well as lean (Fawkner, 2012; McCreary, 2012), as well as known health risks and side effects (European Centre for Drugs and Drug Additions, 2013). Looking directly at how men talk to each other about ephedrine use may help us to understand the ways in which use is justified and maintained. In this study we focus on discussions of ephedrine on one popular website aimed at men - the online version of the popular men's magazine Men's Health - to examine naturally occurring 'talk' around use. That is, talk not elicited by the researchers. Given the health-related side effects of ephedrine use, we are interested in understanding how men made sense of their decision to take (or not to take) a drug with known negative side effects as a way to improve their appearance. In particular, we consider the extent to which "masculinity" may be invoked in the men's accounts, since indices of masculinity (e.g. strength, independence, emotional control) have been referenced by other men involved in other body projects, including weight loss (e.g. Bennet & Gough, 2012). Other research on support groups and online discussion forums consider how a particular 'community of practice' (Wenger, 1998) is defined and policed, focusing on membership criteria, displays of trust and reciprocity, and sharing of experience and knowledge (see Ba, 2001; Greer, 2012; Hargitta, 2008; Hara & Hew, 2007; Wenger, 1998). In our analysis we focus on how the community of practice regarding ephedrine users is constructed – how members are included/excluded in different ways, and how ephedrine use is promoted in the process.

Method

Data Collection

Having compiled a list of search terms commonly used to describe ephedrine (ephedrine, ephedra, fat burner, slimming pills etc.) we conducted a thorough *Google* search of related online forums between September 2013 and February 2014. We encountered several forums that featured discussions about ephedrine. Not surprisingly, many of these were specific to bodybuilding. Other non-bodybuilding forum discussions were found on health, media and commercial webpages. Since our focus was on ephedrine use as a "slimming aid" for male non-bodybuilders we discounted non-specific discussions and those which were often short lived or contained sporadic or inflammatory and often unrelated posts. In order to capture the widest possible demographic audience we selected the only thread from the most popular of eighteen male-targeted online magazines (world-newspapers.com, 2014), *Men's Health*. This was a sizable thread containing nearly 296 posts (29 pages) spanning June 2007- February 2014, spanning 2007-2013.

Men's Health online is one of the top ten magazines globally with nearly 13 million readers annually providing men (and women) with features such as health, fitness, fashion, dating, money, sports and entertainment. It also offers men advice and guidance on relationships, fashion, health, the use of technology and 'hot sex tips' for heterosexuals. Indeed, it also has its own dating domain. Like other lifestyle magazines, readers can comment on particular features by posting directly in relation to a specific article; they may also contribute to an existing thread in the forum domain or even begin their own. Whilst posts 'go live' the site does moderate and remove comments perceived to be illegal, offensive and inflammatory. Whilst this 'policing' is essential it can often mean that comments (and threads) can disappear quickly, leaving the communication truncated and interfering with the context of the remaining dialogue. Although our chosen thread had

clearly been moderated, the discussion the sequences and posts we present were clearly related to each other.

Ethical Issues

Before working with these data we sought and received university ethical approval. Collecting data from the Internet presents ethical challenges around what is deemed a "public" or "private" space. One obvious issue is whether informed consent can be gained. Some scholars (Hookway, 2008; Rodham & Gavin, 2006; Walther & Boyd, 2002) argue that open access online discussion boards, forums and blogs are firmly located in the public domain. As such contributors are aware that their posts will be read by others unless they place them on a "friends only" setting. Thus, accessible electronic talk may be "personal" but it is not "private" (Hookway, 2008:16) and so consent can be "waived". But as the interviewees on the BBC"s *Bang Goes the Theory* (Series 8, Big Data, March, 24, 2014: http://www.bbc.co.uk/programmes/b03zjwqw) showed, whilst aware of unchosen online audiences, they were surprised at who was actually looking, and how much of their data could be accessed even though they thought it was private. In line with BPS guidelines (BPS; 2013), we gained consent from the online host(s) and have anonymised our dataset as far as possible (e.g. replacing tags and pseudonyms with R1 [Respondent 1], R2 etc. and removing any in-text personal details or references.

Data Analysis

Having downloaded all available comments, we initially read all the contributions and sifted out those that were unrelated or spam. We then examined the dataset using discourse analysis. Broadly speaking, discourse analysts aim to explore how "versions of world, of society, events and inner psychological worlds are produced in discourse" and so there is "a concern with participants" constructions and how they are accomplished and undermined" (Potter, 1996, p. 146). In other words, versions of the world are worked up

during conversational interaction – including online electronic talk. The version(s) will depend on the topic of conversation (e.g. sourcing ephedrine), who one is conversing with (e.g. men, fellow drug users), the context (advice or information giving and seeking), location (face-to-face, social media) and time (recent trend). In our analysis we followed three steps (Edwards & Potter, 1992): locating the central themes that are named and/or implied in the talk; focusing on the discursive activities within each section; and examining how respondents constructed accounts, produced descriptions, managed stake (interest) and framed specific activities. We followed this approach when identifying the recurring discourse patterns e.g. relating to masculinised attributes such as "technical and performance talk" (Miller, 2008; Paechter, 2003, Nylund, 2007) and how an "online community of practice" is (re)constructed and maintained (Ba, 2001; Greer, 2012; Hargitta, 2008; Hara & Hew, 2007; Wenger, 1998). The first author conducted the initial analysis which was then modified in discussion with the other two authors, resulting in an agreed set of discourses which are presented below. The sequences and respondents are presented in the order they appeared on the discussion board. However, we selected specific sequences to show the recurring discourse patterns.

Results

Although *Men's Health* claims that nearly 20% of its readers are women, it was clear from our data that the vast majority of contributors to this thread identified as male. Male indexing occurred through the explicit use of traditional names for men, male references ("mate", "bud", "guys", "boys"), positioning in relation to female partners ("wife", "missus", "girlfriend") and invoking typical masculine markers ("alcohol", "rugby", "army", "muscle mass", "testosterone"), treatable as "male" even without this identity being "named out aloud" (Antaki & Widdicombe, 1998, p. 4). Invoking male identity in these ways, as opposed to stating a contributor's pseudonym, tag or avatar, implies a

certain level of camaraderie and community. But being male per se was not enough to become accepted into this online community; our analysis highlights how (potential) users are defined and policed before considering how any risks associated with ephedrine use are downplayed – and drug effects reframed in positive terms.

Constructing (il)legitimate users

Sequence 1

R1: Anyone used this? I've just bought a bottle of these bad boys & the wife has decided to google it. As you can imagine she then read me the riot act about side effects etc etc. Do any of you have any genuine experience of ephedrine? Cheers ;\)

Several things immediately stand out in this post. R1 displays some prior knowledge of the effectiveness of ephedrine since he 'knows' these are "bad boys". Purchase was also preadvice seeking "I've just bought a bottle", and his wife is the one framed as having healthrelated concerns from unwanted side effects ("the wife has decided to google it" - see Seymour-Smith et al., 2002 for more on how women are discursively framed as responsible for men's health). In seeking advice R1 presents as a novice of the membership category 'ephedrine users' (Sacks, 1992). Additionally, he is able to strengthen his credentials to other male forum users by positioning himself as a 'risk taker' (and perhaps masculine – see Miller's 2008 study of university undergraduates for more on how risk taking was used to indicate masculinity). R1 also invokes a notion of (mis)trust in presuming that some respondents may not have "genuine experience of ephedrine" (Ba, 2001). This implies that forum contributors fall into either of the two contrast categories – genuine and hoaxers (Smith, 1978). That is, his request to access the community of seasoned users is authentic thereby helping to avoid being disregarded as 'phony' (Sacks, 1992). By seeking advice and knowledge from "genuine" members, this contributor may be seeking reassurance regarding the risks associated with ephedrine use. We can see how

this community of practice work up the category of 'genuine' user and police membership in a response post:

R2: Yes of course it is a staple of bodybuilding fat loss...But is not without side effects, like Steroids it is illegal to supply without prescription in the Uk but not illegal to possess and use personally...It is safe to use if you are healthy but can cause serious problems if you have high BP, heart problems or are really obese (yes its a fat burner but only really suitable for fit people with a Bf of 20% or less) Side effects vary depending on the individual but include jitteriness, edginess, headache, heart palpitations etc...my advice would be start with a small dose to see how you react and ramp up, if you experience any unpleasant sides then cut back or stop BTW it is much more effective with CAffeine and Aspirin ie the ECA stack you want about 20-30mg Eph 200 mg Caffeine and 15 mg Aspirin a day for best results ...BUT do not expect miracles if a) your Bf is higher than 20% b) your diet is kak

R2 responds to R1"s request and immediately identifies as a genuine user ("Yes of course") who uses ephedrine for "fat loss". R2 works up his authenticity in a number of ways. R2 invokes knowledge of typical users ("a staple of bodybuilding fat loss"), UK legality ("it is illegal to supply...but...not...to posess"), technical knowledge of side effects ("jitterness, edginess, headache, heart palpitations"), effective usage ("more effective with CAffeine and Aspirin ie the ECA") and dosage ("you want about 20-30mg Eph 200 mg Caffeine and 15 mg Aspirin a day for best results"). R2's knowledge is also underpinned by listing and by drawing on "scientific-medical" knowledge. Speakers deploy listing and draw on precision and numbers to add weight to their argument and present their position as factual and authentic (see Jefferson, 1991; Potter, 1996). What is particularly interesting is that whilst side effects are detailed, R2 is able to discount these risks as specific to those who are deemed ineligible with a three-part list of health-related features: "have high BP, heart problems or are really obese". In doing so he positions himself as expert, competent and knowledgeable, which 'others' those he regards as unqualified (e.g. unhealthy, obese) (Miller, 2008; Paechter, 2003, Nylund, 2007), thereby setting the parameters for a community of 'genuine' and 'safe' users (Ba, 2001: Greer, 2012). The creation and maintenance of distinctions between insider expert community

members and naïve outsiders has been noted in studies of other online forums, for example concerning the construction 'pro-ana' (anorexia) identities versus 'haters and fakers' (Giles, 2006). Within this ephedrine community, however, there were no posts from 'haters', people criticising ephedrine users as irresponsible, misguided or foolish, and 'fakers' were not so much in evidence as those deemed naïve or disbarred by virtue of their body features (e.g. weight) or health status (e.g. high blood pressure).

For R2 the claim to being a seasoned user he invites potential critique from those that do not recount similar experiences. A common dilemma for the advice-giving expert is not to be condescending at the same time as coming across as sufficiently experienced; so, technical talk can be mitigated by informal terms ("buddy", "mate" etc.). That is, diverse experiences can be acknowledged. R2 is therefore careful to conclude with a get-out clause in which other users can be held accountable for their own lack of success: "BUT do not expect miracles if a) your Bf is higher than 20% b) your diet is kak" (see Potter, 1996 for more detail on how people account for, or hold accountable, non-typical or expected actions and outcomes). With the deployment of legal, technical and scientific knowledge in R2's post, and experiential knowledge by both R1 and R2 we can begin to discern the boundaries of a 'community of practice' for ephedrine users. That is, what is required to use this substance safely and how to evaluate the other information users provide (see Gray, 2004 for more on how trust is a key factor in the development of a community). To be considered an authentic community member requires a lot of discursive work - and validation from peers who have established themselves and who have been recognised as knowledgeable within the community. For example, a study by Horne & Wiggins (2009) found that accounts of suicidality were only taken seriously if they were constructed in particular ways, such as emphasising being 'on the edge' while not directly asking for help

for fear of being perceived as merely depressed. Not everyone can be accepted into the community, especially one which is centred around something illegal, specialist, or delicate - ephedrine use can be considered secretive, controversial and somewhat exclusive.

Similar to this sequence, the next interaction is also between a novice and an experienced ephedrine user. However, unlike the first example, the novice in the following electronic interaction is not offered advice on how to use the drug, but instead is dissuaded and denigrated.

Sequence 2

R3: Hi there, I am new to all this and been reading that I need to eat six times per day. I am a terrible cook and dont know what complex carbs and wholegrains are etc. I looked at stuff online and it all seemed american with yams etc. I weigh 16st and want to get down to 13. I currently eat: Breakfast - Ricecripies & 2 rounds of toast Lunch - Large white roll with ham salad packet of crisps dinner - meat and veg, broccoli & potatos etc. After gym - protein shake. Is there any guide menus out there like an idiots guide? Sorry for my ignorance guys, but I need your help.

R4: You eat ricecrispies for breakfast, white rolls and crisps and you don"t know what a complex carb is. You should DEFINATELY stay away from ephedrine!! You weight 16 stone, so it will be dangerous anyway, despite the fact you don"t actually have a CLUE what your doing. Your going to kill yourself. Its people like you that get their hands on steriods and end up dead.

R3: I definately think its not for me and I am too inexperienced to use it. I didnt realise it was such a powerful supplement. But if I dont ask, I will never know these things.

R3's post seems at odds with the main theme of the thread since it centres on diet ("I need to eat six times per day" "I currently eat......" and weight loss "I weigh 16st and want to get down to 13."), seeking advice on this topic alone ("Is there any guide menus out there like an idiots guide?"). Yet we can assume ephedrine advice is sought by posting in this thread. Indeed, R4 hears it this way: "You should DEFINATELY stay away from ephedrine!!" (see Sacks, 1992 for a discussion on how people 'hear' discursive activities without them being explicitly stated). What is also evident is that R4 uses the emphasised

(capitalised) extreme-case formulation "DEFINITELY." Extreme-case formulations are ways of invoking minimal or maximal properties, especially in delicate situations (Pomerantz, 1986; Silverman, & Peräkylä, 2008). Delicacy arises because R3 positions himself as a complete novice. But unlike R1, who presented himself as at least partially drug aware, R3 presents himself as naive "Sorry for my ignorance guys". Whilst this advice seeking invites experienced community members to offer guidance, it also signals "risk", indicated by an apology. That is, if R3 does not display a basic level of knowledge ("I am a terrible cook and dont know what complex carbs and wholegrains are etc.") on the prerequisites of ephedrine use (e.g. health, body fat level under 20%) then it might be "too risky" to provide any guidance. Like R2, R4 also attempts to deter ephedrine use based on a body weight ("You weight 16 stone, so it will be dangerous anyway.") Indeed, the final attempt at dissuasion becomes is expressed vehemently ("Its people like you that get their hands on steroids and end up dead)." R3 seems to hear R4 as trustworthy and takes this advice on board ("I definatley think its not for me"), although it is not clear whether R4 is genuine or a hoaxer (Ba, 2001; Schegloff, 2007). Unlike R2, R4 doesn't provide specific detail about dosage, usage and side effects, and also appears to conflate ephedrine with steroids "Its people like you that get their hands on steroids and end up dead" (Hale & Smith, 2012). It is the question of 'expertise' and issues of 'risk' that we now turn to.

Downplaying risk

Sequence 3

R5: This is not an anti-supplement rant...but, there seem to be an awful lot of self-appointed pharmacists on this site, spouting pretty dubious advice. Ephedrine is an extremely potent drug, very similar in nature to adrenaline. It does cause energy to be produced in fat cells (hence it will make you lose weight), but also carries some pretty unpleasant side effects such as tremors, nervousness, heart palpitations and even heart attacks. Most of the supplements you can purchase contain herbal variants (such as Ma Huang) or chemically similar, but vastly less potent analogues (such as pseudoephedrine, which is what you"ll find in most "thermogenic" supplements and

cold remedies). To those wanting to shift a few pounds, save your cash, eat a little less and exercise a bit more!

The context of R5's post is a critique of the advice provided by other respondents invoking (like R1) the possibility of hoaxers ("there seem to be an awful lot of self-appointed pharmacists on this site, spouting pretty dubious advice"; Ba, 2001; Epstein, 2007). In so doing he carves himself out a distinct expert identity (Dickerson, 2000; Miller, 2008; Nylund, 2007), working up authenticity by drawing on technical features of the pharmaceutical (similar to "adrenaline" and "Ma Huang"), its effects on the body ("It does cause energy to be produced in fat cells"), ephedrine's side effects ("tremors, nervousness, heart palpitations and even heart attacks") and the outcome ("it will make you lose weight.)" Like R2, R5's knowledge is also underpinned by listing and by drawing on "scientific-medical" knowledge to add weight to his argument and present it as factual (see Jefferson, 1991). Whilst R5's talk presents as a warning from an informed non-user, his opening ("This is not an anti-supplement rant") allows R5 to warn non-users of the drug's dangers but also to maintain membership within this community. That is, although not an explicit user R5 presents as a knowledgeable forum contributor and as such, possibly a former user. Diverse experiential knowledge is presented on the site, and contributors clearly need to work at constructing a legitimate insider identity – which may include critiquing others ("those") who are perceived as unsuitable or wanting a quick fix for weight loss ("eat a little less and exercise more"). Ephedrine then is not acceptable for weight management only- it must be tied to a body project where muscularity as well as a lean physique is pursued.

Here are some responses to this post:

R6: sides vary from person to person, you can minimise sides, by starting on a low dosage and working your way up to where you feel comfortable, obviously if you start and you start getting serious sides, eph isnt for you no pain no gain!

R7: Ephedrine is not for someone who has high blood pressure or problems with their heart. Other wise if you do take it and you have serious side-effects stop taking it.

The first response (R6) seeks to downplay ephedrine's negative features ("sides vary from person to person"). Minimisation is reported to be a common discursive tactic when one faces potential critique (see Potter, 1996). A sensible progression is advocated, and any problematic side effects are linked to an individual ("eph isn't for you") rather than the general population. In this way R6 likens ephedrine to other established pharmaceuticals which provide health benefits for most but side-effects for some (Calfee & Fadale, 2006; Ricciardelli, 2012). Similarly, R7 focuses on those individuals who are more vulnerable in some way ("someone who has high blood pressure or problems with their heart") – implicitly ephedrine users/community members on the website are healthy and immune to such complications. The advice for those other (potential) users is to quit ("stop taking it") – there is no room for debate, offers of support, or onward referrals to a health professional, it is pragmatic and a rational response. (see Miller, 2008; Nylund, 2007; Seymour-Smith, et al., 2002).

We continue to examine the minimisation of side effects in the following sequence of responses, but with additional focus of how forum members accentuate the positive effects of ephedrine.

Accentuating the positive

Sequence 4

R8: i take eph regularly, awesome, and i have noticed the fat loss while on it! i took some this morning and will take another dose about 12 or 1 i dont get much sides, a little jittery but i enjoy it, also feel the adrenaline pumping from about 7am-10am lol

R9: Ephedrine has worked wonders for me. Its ability to curb cravings and slightly increase metabolism Using an ECA stack will create a more thermogenic effect. This will help to prolong the effects. If you use it with a proper diet you will see results. Its important to drink plenty of water and not to take it at least 6-8 hours before bed.

Both respondents position themselves as explicit ephedrine users. R8 highlights the benefits of regular use - "fat loss" and "adrenaline pumping" - whilst downplaying side effects ("i dont get much sides, a little jittery"). Indeed, the side effects are reported as positive: "but i enjoy it". R9, on the other hand, focuses on physiological rather than experiential dimensions: "increase metabolism", "thermogenic effect" from using an "ECA stack" (the thermogenesis effect of ephedrine and in combination with caffeine and aspirin is to raise body temperature by stimulating heart rate and as a result burning more calories (Magkos & Kavouras, 2004; National Institutes of Health: Office of Dietary Supplements, 2008). In doing so the technical and positive aspects are accentuated whilst minimising side effects. Such accounts position both as experienced users in control whilst also discounting challenges as "scaremongering". Again, a "community of practice" is reinforced, facilitated by a shared language of experience (Greer, 2012; Wenger, 1998). As mentioned before, those giving advice could be seen as condescending, and as well as using informal language (see above), personal experience is foregrounded rather than instructions:

R10: I"ve taken this before. It gave me a really good buzz when I found the right dose and made me workout harder (more reps, slightly more weight) I found that I couldn"t really push myself on my CV workouts though as I felt like I wanted to chuck up!!! Other side effects were edginess, appetite suppression, wide eyes later on in the day and also you feel like you want to sleep when you "come down" Overall it is really good for fat loss when used in conjunction with a good workout programme and a good diet. P.S. you can get hooked on this %&*\$#, and if you do you"ll look like a bag of %&*\$#!!!! Believe me, I"ve seen it!!

R10 uses ephedrine for athletic performance: "made me workout harder (more reps, slightly more weight)" (Magkos & Kavouras, 2004). What is notable is the side effect associated with cardiovascular workouts: "I couldn"t really push myself on my CV workouts though as I felt like I wanted to chuck up!!!" As previously noted by other respondents, the drug suppresses appetite and has a 'come down' effect. However, the side effect "edginess" was

rarely reported within the thread. Nonetheless, despite these potentially health-defeating effects, R10 is careful to downplay these negative aspects and reframe usage as beneficial: "Overall it is really good for fat loss". Like R2 and R4, potential users should be healthy "when used in conjunction with a good workout programme and a good diet." What is also striking (and rarely noted) was any addictive potential "P.S. you can get hooked on this %&*\$", which in the long run would combat any presumed health gains "if you do you"ll look like a bag of %&*\$#!!!! Believe me, I've seen it". Moreover this is reported as experiential knowledge and hard to rebut "Believe me, I"ve seen it!!" Like many other forum members, R10 is able to present himself as a rational, in control risk taker who, with 'safe practice', is able to minimise any harmful effects from this psychoactive substance. In deploying these features, forum members create a community of (mis)trust (Ba, 2001) based on shared experiential knowledge of usage, dose, effects outcomes etc., which are often presented as factual. Such accounts link with work on steroid users where men present as expert users who had researched the area and made an informed choice to take steroids, who denigrate uninformed users, and who focus on the positives and downplay significant health issues (Fawkner, 2012; Hale & Smith, 2012; McCreary, 2012).

Discussion

Ephedrine use is associated with many health risks and side effects, which any user is compelled to acknowledge and negotiate in order to rationalise consumption. Our analysis highlights how men account for - and justify - their ephedrine use to other users and contributors to an online forum linked to *Men's Health* magazine. We have shown how membership of the ephedrine user community is policed, how use is predicated on certain attributes relating to health, body shape and lifestyle, and how use is positively framed when undertaken by 'legitimate' users - including side effects otherwise viewed as unpleasant.

Our analysis chimes with other discursive studies of online communities where in-group identities are constructed, negotiated and policed in relation to controversial or delicate health-related topics (Horne & Wiggins, 2009; Giles, 2006).

Overall, risk is downplayed for eligible users, who position themselves as rational, pragmatic, knowledgeable, and in control. We have also noted that ephedrine use is tied to masculinised gym, sporting and occupational contexts, and that appetite suppression effects are generally (although not always) welcomed. Weight loss for men in the context of ephedrine use then is framed as masculine — based on science, personal experience/expertise, and logical intake plans linked to sport and muscularity.

To our knowledge our study is the first to examine how ephedrine users account for and legitimise their consumption in the context of an online discussion forum. We see similarities between our analysis and qualitative research with male steroid users who attempt to present their practices as safe and beneficial so long as used by well-informed, 'legitimate' users (e.g. Grogan et al., 2006; Hale & Smith, 2012). With both groups, there is a focus on constructing and maintaining a community of practice whereby insider experts use a common language, offer information and advice to each other, share experiences – and exclude those deemed to be inauthentic, amateur or otherwise unfit to be accepted into the community. In the online world of regular ephedrine users, "eph" (or the ECA stack) is framed in very positive ways relating to body size, shape and weight, sporting performance, and psychoactive effects (the "buzz").

From a health promotion perspective, use of high doses of ephedrine is fraught with unknown health risks and dangerous side effects (Calfee & Fadale, 2006; Medicinenet.com, 2014), so the accounts of ephedrine users could and perhaps should be challenged. For

example, information on the dangers of ephedrine which cites scientific evidence (a resource drawn upon by users) could be posted online or at gyms. As well, alternative nonchemical ways of weight managing weight could be promoted at these sites. Markers of masculinity drawn upon by male users could also be leveraged to discourage or minimise ephedrine use, for example using notions of rationality or pragmatism.

Although our study works with original, naturalistic data around a relatively new but poorly understood phenomenon, we recognise that our study is preliminary and that much more research is required with ephedrine users. For example, although we suspect, based on our data set, that most users are younger men aged 18-25 we cannot be sure of this given the methodology used here, and so gaining access to users at gyms and through sports clubs for surveys and interviews would help us to determine this demographic, and to gain the perspectives of men from different age (and ethnic, class) groups concerning perceived risks and benefits. In contrast to public posts online, one-to-one interviews would allow men time and space to account for their ephedrine use in detail and in confidence. It would also be interesting to conduct qualitative longitudinal case studies with users whereby patterns of use and associated effects on embodiment, wellbeing, and performance could be tracked over time. Finally, we know little about how women view ephedrine use, or how female ephedrine users understand and manage their consumption, so a study involving women would be recommended.

References

Antaki, C. & Widdicombe, S. (Eds.) (1998). *Identities in Talk*. London: Sage.

Arne, A., Breum, L., Toubro, S., Hein, P. & Quaade, F. (1992). The Effect and Safety of an Ephedrine/Caffeine Compound Compared to Ephedrine, Caffeine and Placebo in Obese Subjects on an Energy Restricted Diet, A Double Blind Study. *International Journal of Obesity and Related Metabolic Disorders*, 16, 269-277.

Ba, S. (2001). Establishing online trust through a community responsibility system. *Decision Support Systems*, 31(3) 323-336.

Bąkowski, P. (2013). Control of drug precursors in the EU. *Library Briefing, Library of the European Parliament*, October 17, 2013. Retrieved February 14, 2014 from:

http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2013/130640/LDM_BRI(2013)130640_REV1_EN.pdf.

BBC (2014). Bang Goes the Theory: Big Data. *Series 8*, March 24. Retrieved March 24, 2014 from: www.bbc.co.uk/programmes/b03zjwqw.

British Psychological Society. (2013). Guidelines for Internet-mediated Research. Retrieved December 13, 2013, from: http://www.bps.org.uk/system/files/ Public%20files/inf206-guidelines-for-internet-mediated-research.pdf.

Bray, GA (1999). Drug Treatment of Obesity. *Baillieres Best Practice and Research-Endocrinology and Metabolism*, 13, 131-48.

Calfee, R., & Fadale, F. (2006). Popular ergogenic drugs and supplements in young athletes, *Pediatrics*, *117*, 577 -589.

Daly, PA; DR Krieger, AG Dulloo, JB Young, L Landsberg (1993). Ephedrine, Caffeine, and Aspirin: Safety and Efficacy for Treatment of Human Obesity. *International Journal of Obesity and Related Metabolic Disorders*, 17(1), 73-8.

Dickerson, P. (2000). "But I'm different to them": Constructing contrasts between self and others in talk-in-interaction. *British Journal of Social Psychology*, 39, 381-398.

Edwards, D. & Potter, J. (1992). *Discursive Psychology: Inquiries in Social Construction*. London: Sage.

Epstein, R. (2007). The Truth About Online Dating. Scientific American Mind. Retrieved June 19, 2010, from http://drrobertepstein.com/pdf/Epstein-TheTruthAboutOnlineDating-2-07.pdf.

Fawkner, H.J. (2012). Body image development- adult men. In T. Cash (Ed.). *Encyclopedia of Body Image and Human Appearance* (pp. 194-201). London: Elsevier.

Food and Drug Administration. (2004) FDA announces rule prohibiting sale of dietary supplements containing ephedrine alkaloids effective. Retrieved February 14, 2014 http://www.fda.gov/bbs/topics/news/2004/NEW01050.html.

Gray, B. (2004). Informal learning in an online community of practice. Journal of Distance Education. 19(1): 20-25.

Grogan, S., Shepherd, S., Evans, R., Wright, S. and Hunter, G. (2006). Body Builders Experiences of Anabolic Steroid Use: In-depth Interviews with men and women body builders, *Psychology and Health*, *11*, 845-856.

Grogan, S. (2008). *Body Image: Understanding Body Dissatisfaction in Men, Women, and Children*. London: Routledge.

Grogan, S. (2010). Gender and Body Image: Implications for Promoting Body Satisfaction. *Sex Roles*, 63, 757-765.

Grogan, S. & Richards, H. (2002). Body image: focus groups with boys and men, *Men and Masculinities*, 4, 219-232.

Gough, B. (2007). "Real men don't diet": An analysis of contemporary newspaper representations of men, food and health. *Social Science and Medicine*, 64 (2), 326-337.

Hale, B.D., & Smith, D. (2012). Bodybuilding. In T. Cash (Ed.). *Encyclopedia of Body Image and Human Appearance* (pp. 66-74). London: Elsevier.

Hara, N. & Hew, K.F. (2007). Knowledge-sharing in an online community of health-care professionals. Information Technology & People. 20(3), 235-261.

Hargittai, E. (2008). Whose Space? Differences Among Users and Non-Users of Social Networking Sites, *Journal of Computer-Mediated Communication*, 13, 276 - 297.

Health Canada (2008). Ephedra/ephedrine - Advisories and Warnings. Retrieved February 18, 2014 from: http://www.hc-sc.gc.ca/ahc-asc/media/advisories-vis/ 2002/2002 01bk2 e.html.

Hookway, N. (2008). Entering the blogosphere. Some strategies for using blogs in social research. *Qualitative Research* (8), 91.

Jefferson, G. (1991). List construction as a task and a resource. In G. Psathas (Ed.) Interactional Competence. New York: Irvington Publications.

Jeffries, M. & Grogan, S. (2102)."Oh, I'm just, you know, a little bit weak because I'm going to the doctor's": young men's talk of self-referral to primary healthcare services. *Psychology and Health*, *27*, 898-915.

Kanayama, G., Gruber, A.J., Pope, H.G., Jr, Borowiecki, J.J., & Hudson, J.I. (2001). Over-the-counter drug use in gymnasiums: an underrecognized substance abuse problem? *Psychotherapy and Psychosomatics*, 70,137-40.

Magkos, F. & Kavouras, S.A. (2004). Caffeine and Ephedrine. *Sports Medicine*. 34 (13), 871-889.

Medicinenet.com (2014). Ephedrine-oral. Retrieved March 25, 2014 from:

http://www.medicinenet.com/ephedrine-oral/article.htm

Medicines and Healthcare Products Control Agency (2011). Warning issued about slimming drugs containing ephedrine. February, 25. Retrieved February 14, 2014 from:

http://www.mhra.gov.uk/Safetyinformation/Generalsafetyinformationandadvice/Herbalmedi cines/Herbalsafetyupdates/Allherbalsafetyupdates/CON013902

McCreary, D. R. (2012). Muscularity and Body Image. In T. Cash (Ed.). *Encyclopedia of Body Image and Human Appearance* (pp. 561-567). London: Elsevier.

Miller, K. (2008). Wired: Energy Drinks, Jock Identity, Masculine Norms, and Risk Taking. *Journal of American College Health*, 56(5): 481-490.

National Institutes of Health: Office of Dietary Supplements (2008). Ephedra and Ephedrine Alkaloids for Weight Loss and Athletic Performance. Retrieved February 18, 2014. http://dietary-supplements.info.nih.gov/factsheets/ephedraandephedrine.asp.

NHS (2014). Ephedrine hydrochloride. Retrieved March 25, 2014 from:

http://www.nhs.uk/medicineguides/pages/MedicineOverview.aspx?

condition=Asthma&medicine=Ephedrine%20hydrochloride&preparationEphedrine%20hydrochloride%2015mg%20tablets

Nylund, D. (2007). *Beer, Babes, and Balls: Masculinity and Sports Talk Radio*. Albany: State University Press New York.

Paechter, C. (2003). Masculinities and femininities as communities of practice. Women's Studies International Forum, 26(1), 69-77.

Pomerantz, A. (1986). Extreme case formulations: a way of legitimizing claims. Human Studies, 9, 219-229.

Potter, J. (1996). Representing reality: Discourse, rhetoric and social construction. London: Sage.

Ricciardelli, L. A. (2012). Body Image Development- Adolescent Boys. In T. Cash (Ed.). *Encyclopedia of body image and human appearance* (pp. 180-187). London: Elsevier. Rodham, K., & Gavin, J. (2006). The ethics of using the internet to collect qualitative research data, *Research Ethics Review*, 2(3), 92–97.

The European Centre for Drugs and Drug Additions (2013). The State of the Drugs Problem in Europe: *Annual Report*. Luxembourg: Publications Office of the European Union.

Retrieved February 14, 2014 from: http://www.emcdda.europa.eu/edr2013

Sacks, H. (1992). Lectures on Conversation. Oxford: Blackwell.

Walther, J. B., & Boyd, S. (2002). Attraction to computer-mediated social support. In C. Lin & D. Atkin (Eds.), *Communication technology and society. Audience adoption and uses* (pp. 153–188). Cresskill, NJ: Hampton Press.

Schegloff, E. A. (2007). A tutorial on membership categorization. Journal of Pragmatics, 39, 462-482.

Seymour-Smith, S., Wetherell, M. and Phoenix, A., (2002). "My wife ordered me to come!": a discursive analysis of doctors" and nurses" accounts of men's use of general practitioners. *Journal of Health Psychology*, 7 (3): 253-268.

Silverman, D. & Peräkylä, A. (2008). AIDS counselling: the interactional organisation of talk about "delicate" issues". *Sociology of Health & Illness*, 12 (3), 293-318.

Steroidal.com (2014). Ephedrine cycle. Retrieved March 25, 2014 from:

http://www.steroidal.com/fat-loss-agents/ephedrine/ephedrine-cycle/

Wellard, I. (2002). Men, sport, body performance and the maintenance of "exclusive masculinity". *Leisure Studies*, 21(3-4): 235-247.

Wenger, E. (1998), *Communities of practice: learning, meaning, and identity*. Cambridge University Press: Cambridge.

World-newspapers.com (2014). Men's Magazines. Retrieved March 24 from: http://www.world-newspapers.com/men.html.