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A Triad of Physical Masculinities: Examining Multiple ‘Hegemonic’ Bodybuilding Identities in Anabolic-Androgenic Steroid (AAS) Online Discussion Groups

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ABSTRACT

The last twenty years has seen increases in nonprofessional sportspersons using anabolic-androgenic steroids (AAS). Although some women use AAS, most users are men. Few studies examine men, masculinities and AAS. Of the limited studies available, many link a ‘hegemonic masculinity’ with men’s AAS use; adopting a singular identity perspective and generalizing ‘steroid use.’ However, bodybuilding is diverse, often encompassing different goals surrounding muscularity, size, weight and appearance – thus, bodybuilding identities are unlikely to be singular. This research questions narrow perspectives, developing an in-depth investigation that recognizes AAS use can be complex and depict multiple performance-enhancing drugs and usage routines. This study conducted a detailed thematic-content analysis of 351 user-postings from eight pro-AAS online discussion boards to examine linkages between men’s understandings of masculinity, male physicality, and how conceptualizations influence different trends for using AAS. Research applied R.W Connell’s *hegemonic masculinity* as a theoretical lens to interpret findings. Findings uncovered multiple and diverse notions of bodybuilding masculinity linked to three distinct notions of identity connecting different AAS practices (The Nattys, The Cyclers, and The Blasters-and-cruisers). An analysis of interactions between different bodybuilding identities is presented and discussed, alongside implications for masculinities theory and further study in this emerging but important field.

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Introduction

Anabolic-androgenic steroid use

The use of AAS by men to enhance physicality, strength, and appearance is not a new phenomenon. As far back as the mid-1930s isolate-methylated synthetic forms of the male hormone testosterone were legally and medically utilized to enhance ‘male vigour’, bodily endurance, mental focus, and physical stamina in men approaching middle age, as natural levels of the male hormone begin to decline (Barbonetti, D’Andrea, and Francavilla 2020; Hoberman and Yesalis 1995). From the 1940s to the 1970s development of synthetic androgens became refined to include stronger and longer-lasting injectable testosterone esters (Bassil, Alkaade, and Morley 2009). This period also saw development of synthetic steroidal analogues more potent than testosterone. The oral steroid Norethandrolone, developed in 1953 examples early engineered separation between androgenic and anabolic effects. Androgenic effects refer to the development of ‘male’ secondary sex characteristics, such as deepened voice, facial bone growth, body fat distribution, and neuronal brain changes (Fink et al. 2019; Patt et al.

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2020). Anabolic effects refer more specifically to efficiencies in energy expenditure, protein synthesis: biosynthesis of amino acids and amino transports, glycogen storage, and consequent development of muscle mass – amplifying strength, endurance, and physical composition (Milne 2017; Morris 2019). While synthetics of testosterone target A-A (anabolic-androgenic) pathways in fixed and relatively equal manner to naturally occurring testosterone, other specific AAS have different balances prioritizing one pathway over another. For example, in the case of Norethandrolone and many subsequent AAS, androgenic receptors are triggered mildly, while anabolic receptors are preferentially activated to promote rapid muscle gain and growth with little secondary masculinizing effects (Barile 2019). Selective targeting has numerous legitimate medical uses, such as treating muscle wasting in autoimmune and growth disorders (Mancini et al. 2020), promoting healing in post-burn surgery (Iles and King 2019), and encouraging cellular growth in those with anemia (Mehta et al. 2018).

Muscle growth effects have led to AAS use as performance-enhancers for sports where endurance, physical strength, and enhanced recovery are desirable. Use was previously accepted within many sports until the mid-1970s, when initial, urinalysis androgen compound testing was introduced into competitive athletics, including the Olympics (Catlin and Murray 1996). Despite this, few athletics organizations regularly and mandatorily test competitors for AAS. In bodybuilding competitions, testing for AAS is uncommon, unless the competition is specifically designated as a “natural” competition - i.e. competitors are prohibited from using AAS (Heggie 2010; Mottram 1999).

The most significant increase in AAS-using demographics in the last thirty years have been otherwise healthy, noncompetitive male gym-goers (Kanayama, Hudson, and Pope, Jr. 2020). Despite some research indicating increasing AAS use for bodybuilding by women (Börjesson 2021; Devine 2019; Harvey 2019), most AAS use is thought to still occur by men (Anawalt 2019; Goldman, Pope, and Bhasin 2019). Several recent studies have suggested a growing pressure on men in their early twenties to achieve a gym-honed and “shredded¹ yet muscular” physique; an aesthetic trend frequently described by social media platform Instagram hashtags as being “ripped to the bone” (Ghaznavi and Taylor 2015: 5; Kanayama, Hudson, and Pope, Jr. 2020). Other scholars suggest increasing media normalization of high-muscularity, low body-fat figures encourage greater self-scrutiny and idealism of these archetypes (Gilmore et al. 2020; Greenway and Price 2020). For example, a recent study by Modica (2020) found adult males spending lengthy periods of time browsing fitness hashtags on Instagram rated exponentially increasing dissatisfaction with their physical appearance and poor perceptions of acceptable body-fat and muscularity. Earlier research by Griffiths et al. (2018) studied contributions of social media body archetypes on risk-behavior. Scholars concluded sexual minority group men were significantly more likely to engage in AAS use following exposure to muscular male physique imagery on social media. Similar studies by Melki et al. (2015) and Walker and Joubert (2011) highlight media motifs of male muscularity and low body-fat as factors shaping perceptions of newer injectable AAS as ‘safe’ and ‘necessary’ practices to achieve a desirable male physical appearance. Linked to the above, Hilken et al. (2021) also explore trends of bodywork linked to AAS use and self-image, mediated by social media use. They found “image-centric social media use” (p. 3) was positively correlated with performance-enhancing drugs, particularly in young, male gym-users.

Additional AAS-focussed literatures explore the global epidemiology of AAS use. McBride, Carson, and Coward (2018) present a fascinating examination of the availability of AAS, with the internet as the primary tool of acquisition. Authors suggest AAS are readily purchasable online and sites often provide advice on use of multiple injectable compounds for muscle building and post-cycle recovery, in addition to selling adjunct medications for mitigating side effects. The prevalence of websites selling AAS and dispensing advice lends to uptake in interest and use; the authors suggesting availability of AAS and linked negative health outcomes pose a significant public health issue. Relatedly, Christiansen, Vinther, and Liokaftos (2017) presents a typology of men’s use -and abuse- of AAS. Unlike much sociology-focussed literatures, the authors suggest that AAS use is complex and multi-

¹The term ‘shredded’ typically refers to low body-fat percentage. This accents the visibility of different muscles and muscle groups. It is a popular term in bodybuilding circles.

faceted, in terms of both understandings and perceptions of health risks, and the desired and intended bodily goals of men using AAS. They suggest four ideal types of men using steroids: The expert, the ‘well-being’ type, the YOLO type, and the Athlete – each hold different, but at times overlapping notions of motivation for using AAS (see p. 9).

Studies focussing on abuse and the polypharmacy nature of AAS use also exist. Sagoe and Pallesen (2018) and Sagoe et al. (2015) both uniquely explore the prevalence of polypharmacy drug use in relation of AAS. Saliently, -in a novel descriptive metaanalysis- they highlight several key points of interest with regards to the trends of “stacking” AAS (p. 8), exploring the pro-bodybuilding components of taking multiple AAS and other compounds; noting tendency for AAS users to use medications such as anti-estrogenic drugs, fat-burners and stimulants. However, the authors also suggest overlap in AAS use with nonspecific and non-explicit bodybuilding goals, linking use of AAS with alcohol, amphetamine and other stimulants and opiates and providing qualitative accounts of drug transference from AAS users (see p. 8). Adjunctively, Hauger et al. (2019) also explore AAS abuse, citing this as a serious public health concern within the western world. Like Sagoe et al. (2015) the authors explore dependence, and sustained psychological and physiological effects from AAS, and associated intra- and interpersonal problems experienced by users. Most interestingly, after a multivariate analysis following an emotional recognition test of biological emotion, the authors demonstrate that a general impairment in emotional recognition was found in AAS-dependents, compared with AAS-using non-dependents and non-AAS-using weightlifters.

Existing research and ‘hegemonic masculinity’

Sociological studies exploring linkages between men’s masculinities, bodybuilding and AAS use are few. Notably, most existing studies employ R.W. Connell’s theory of hegemonic masculinity (HM) as the theoretical lens by which to make sense of findings (Connell 2005; Messerschmidt 2019). The term hegemony derives from Antonio Gramsci’s notions of cultural hegemony; depicting a singular -dominant and ruling- cultural normality existing as unquestioned, yet subscribed to as normative by the populace of a given locale (Gramsci 2011). Connell reattaches the term to a set of male-dominated practices; unpacking HM as a configuration of performed male behaviors depicting “time honoured” notions of being a man at three levels of society; the local, regional, and global (Connell 2005, p. 23). While HM can represent different intersecting constructs at each level, typical ‘hegemonic’ behaviors are presented as mostly negative depictions of enacted masculinity; normalizing aggression, physical strength and prowess, control, exaggerated heterosexuality and competitiveness between men. Connell’s masculinities are hierarchical. Motivations to perform practices orient men toward seeking a desirable hegemonic (i.e. dominant) social position. Refusal to participate in practices most definitively recognizable as exemplifying HM relegate men toward a position of subordination; their ‘maleness’ failing to attain the normative masculine standard and marked instead with feminine typing by other competing men as a mode of subordination. Aside from these polar positions, mid-point complicit masculinities are defined. This middle bracket represents men who do not overtly attempt to conform to or chase stereotypical hegemonic notions and practices, yet tolerate these performances, as they naturally afford men a societal patriarchal dividend that preserves their dominant social position over women and marginalized males (Messerschmidt 2019).

Studies by Andreasson and Johansson (2019) and Vallet (2017) both explore bodybuilding practices and AAS use in the context of men’s struggle to attain desirable hegemonic physicality -defined as high levels of muscularity- while avoiding marginalized and subordinated ‘weak’ bodily performances. Both studies conclude many male bodybuilders cultivate masculine identity as a mind-set of embodying archetypal hegemonic notions of size, strength, muscular definition, resilience, and challenge. AAS use was deemed a necessary factor in men’s journey for competitive superiority over other ‘less masculine’ men and pursuit of HM as a physical goal. Applying a more manifold approach to masculinities, a study by Underwood (2018) explored male relations and communications in an online bodybuilding community. The author concluded virtual communication practices lent to a de-gendering of

traditionally feminized traits of vulnerability, mutual support, and intimacy. While men supported physical hegemonic ‘muscular’ archetypes, they incorporated new notions of non-hegemonic communication performance into their otherwise hegemonic gendered displays. Similarly, a recent and fascinating study by Marshall, Chamberlain, and Hodgetts (2020) examined male bodybuilding narratives on Instagram. By employing HM as a framework for analysis of men’s pursuit of “very muscular, hypermasculine bodies” (p. 1) scholars found anti-hegemonic narratives such as self-objectification, emotional intimacy, vulnerability, and emotional expressions. While men performed HM as physical practices in pursuit of dominant, normative and socially desirable physicality, they negotiated these performances with emotional motifs traditionally subordinated in Connell’s depictions of hegemonic theory (Connell 2005).

Aims of this research

While some of the small number of existing studies of masculinities, bodybuilding and AAS suggest hybridized and multiple notions of masculinity, these understandings are contextualized alongside normalization for a singularized notion of ‘hegemonic’ bodybuilder physicality. Notably, for existing studies, HM appears positioned as the default physicality and identity embodied by bodybuilders, with ‘non-hegemonic’ displays positioned as a counter to men’s otherwise normative hegemonic ‘masculine’ practices. However, it’s unclear at times what tangible evidence exists to frame such bodybuilding activities as hegemonic, per Connell’s descriptors (Connell 2005). In existing studies, linkages focus on muscularity, size, domination and physical attributes labeled by scholars as hypermasculine. However, bodybuilders may strive to perform masculinities through physical development in different and distinct ways. In line with this thinking, existing studies largely generalize ‘steroid use’ as linked to ‘hegemonic’ bodybuilding notions of masculinity. Enquiries tell us little about how different masculinities engage in different risk behaviors with different steroidal compounds to achieve different physiques – nor elucidate on the linkages between different bodybuilding masculinities and rejection and acceptance for AAS overall. Exploring these perspectives is important to develop a more nuanced understanding of how different notions of bodybuilding identity and physicality may use AAS.

This study contributes to the recently emerging body of physical masculinities literature by examining linkages between different notions of masculinity and the role of AAS in achieving men’s different aesthetic developments. Masculine notions are explored as motivators for a variety of AAS use in men engaging in online discussions of their bodybuilding activities and AAS use. This study begins with the premise that men’s masculine notions vis-à-vis bodybuilding can vary widely in understanding, subscription and practice. It is reasonable to expect men bodybuilding do not uniformly conceptualize their physical notions of masculinity in identical ways that can be encompassed by the singular descriptors ‘hegemonic’ or ‘hypermasculine’ while striving for likely varied and diverse physical goals and appearance. This study seeks to identify and differentiate cultural groups of bodybuilders by their masculine associations, and examine the relationships between each culture’s physical goals and AAS attitudes and engagement, this is achieved by asking the question: **How do men conceptualize their masculine bodybuilding identities and AAS use in a sample of online discussion forums?**

Method

Search strategy and inclusion criteria

Raw data as conversations and message-board ‘thread’ postings were archived from eight separate public website-based message boards that focus on muscular development. Data collection began in April 2021 and was concluded May 2021. Forum links were picked at random from Google Advance search results that used the keywords: “Steroid use, AAS muscle-building, anabolic-androgenic steroids, AAS and bodybuilding”. In total 691 separate postings were downloaded. Raw text materials

were archived by scrolling through forums and manually downloading complete threads. This provided a wider perspective for analysis than simply searching keywords, and this approach matches recent qualitative analysis methods for contemporary social media studies (Lebron et al. 2020; Marshall, Chamberlain, and Hodgetts 2020). Forums were publicly available for viewing by anyone with internet access, and all comments were in the public domain. No contact was instigated with any forums or forum members and all posting handles were immediately anonymized. Data analyzed consisted of discussions regarding different bodybuilding goals and how use of AAS can help achieve these. Almost all comments and discussions were from males. All eight message boards allowed (and at times encouraged) conversations about AAS use. Notably, several other message-boards were considered for analysis; appearing also in the initial Google search, however these prohibited discussions of AAS use.

Data extraction and synthesis

Analysis of the online materials was iterative and thematically focussed; influenced by the six-stage thematic-content-analysis method popularized by Braun and Clarke (2019) and Smith et al. (1992). This methodology has previously shown validly in analyzing textual conversations relating to men's masculinities and physicality, and specifically perceived 'hypermasculine' bodily goals (Ricciardelli, Clow, and White 2010; Vokey, Tefft, and Tysiaczny 2013). Firstly, several passes of the raw text data were manually completed to develop familiarization. During this period, initial emergent themes were noted. Postings were then imported into a software tool² and reviewed continuously to clarify initial findings. Several 'core' themes were identified relating to motifs of masculinity, specific bodybuilding goals and desired physicality, and AAS use: preferences and rejections. A network of written codes was developed to link specific physical themes to different – and recurrently refined – cultural categories of masculinity. Selection was determined by the content of postings suggesting notions of maleness and what it means to be a man. Codes were then further refined and links to textual paragraphs discussing identity, identity-goals and physicality were recorded: first to themes relating to masculinity and secondly to themes relating to AAS usage and nonuse. Sub-theme categories were developed to examine and link themes congruent with Connell's notions of hegemonic masculinity, including categories detailing subordination and domination of some masculine groups over others. Penultimately, sub-themes detailing anti-hegemonic practices of support were mapped to explore positive non-hegemonic bodybuilding performances identified by Marshall, Chamberlain, and Hodgetts (2020). A final phase of reviewing was conducted to clarify themes using a text search function to cross-check for differences and inclusions between the different bodybuilding groups identified.

Quality control procedures

It is important to be clear about the process of data collection involving online research. A salient validity-related limitation of some online research is the common use of software programs or language (i.e. Python) to automate capturing, or 'scraping' postings from online forums (Mintz et al. 2020; Pan, Feng, and Shen 2020). This research manually downloaded a total count of 691 postings from online discussion forums. For this study, a time-intensive manual post-count analysis was also completed to cross-check the number of postings downloaded, versus the number truly available for analysis. A second re-count was completed at a different time-point to provide a further cross-check. Importantly, counts revealed many deleted postings within forums, reposting of same text counted as a new posting, postings overwritten using code to remove text, postings replaced by links to new

²There is a trend for some qualitative, sociological research to promote specific (and often costly) analytical tools as necessary to conduct strong qualitative research. However, there are many free-for-use and open-source alternative software tools available. In this case, I have chosen to leave absent the name of the software used.

Forum label:	Postings contained within:	Postings available for analysis:
Forum 1	21	21
Forum 2	41	26
Forum 3	178	94
Forum 4	170	61
Forum 5	24	12
Forum 6	49	49
Forum 7	85	39
Forum 8	123	49
Total	691	351

Figure 1. Breakdown of postings sampled and analyzed across the eight forums.

threads, and postings archived. This reduced the total posts available for analysis and reveals the benefits of a more thorough manual analysis of data and data-count. This checking avoids scholars incorrectly presenting an inflated count of postings versus the postings *actually* analyzed. [Figure 1](#) below, shows a breakdown of posts by forum and posts available for analysis, inclusive of final totals.

A further concerning trend within some emerging online research is to reference quotations drawn from publicly available internet resources in full verbatim and unedited form in publications (for a full discussion of the ethics and implications of this see [Adams 2022](#)). Scholarly rationale for this may be that the data is available freely – on public forums – and is viewable by anyone with internet access. However, this approach does little to protect the anonymity of online posters, allowing for online reverse-searching of quotations to lead back to the source of posters, and possibly the poster's username and posting history. Converse to this thinking, this study has taken great care to edit and partially reword all quotations used to prevent reverse searching, to protect the anonymity of original posters. All and any original meaning in quotations has been preserved throughout this editing process. All final, edited quotations were cross-checked extensively using reverse searching, including advanced Google search, and -at the time of submission for publication- searches did not result in the discovery of any original material (BPS – British Psychological Society 2017; BSA – British Sociological Association 2016).

Findings

At least three distinct notions of masculinity were identified on forums, each of these masculinities corresponded to different ideal perceptions of male physicality. Men achieved their physiques in different ways, some using specific AAS compounds whilst rejecting others. Interestingly, men also enacted their masculinity toward other bodybuilders differently, with men from some groups subordinating those that held incongruent understandings of physical masculinity and differing acceptable and non-acceptable bodybuilding practices to their own. Conversely -at times- members from other groups supported and legitimized masculinities other to their own, while recognizing these as distinctly different.

The nattys

Surprising for the setting of pro-AAS discussion forums, one of the most prevalent groups posting online comprised of 'natty'³ (natural) bodybuilders who did not use AAS, yet regularly partook in online discussions about the possibilities and pitfalls and "cost/benefits" ratio of steroid use. These men were avid bodybuilders; their post histories often discussing grueling training regimes. Many

³'Natty' is a well-used descriptor in online and wider real-world circles for a natural bodybuilder who does not use (or claims not to use) AAS.

cited goals of developing increased strength and muscularity in their profile descriptions and signatures, and past posts. These men predominantly conceptualized their identities through notions of “healthy” muscular physicality, exalting their untampered bodies were of a natural and ‘non-enhanced’ state, that posed no risks of side effects or ill health from AAS use: “I’ve done things the natural way”/“you can make tremendous gains naturally”. This group of men wanted to build as much muscle as possible, but do so “naturally” and safely. One poster: ‘ML,’ summarized this Natty ideology:

Stop comparing yourself to others and just workout and be healthy. You can build a good physique naturally. Enjoy the process and accept you will never have the best physique compared with those using AAS.

Notably, and as with the quotation above, most Nattys recognized they could never achieve similar physicality to those bodybuilders using AAS. However, interestingly, they often admired the physiques of these pro-AAS bodybuilders. At times, they upheld these exemplars as motivational goals for diet, training, and supplement regimes. For some, this interest was framed as a study of sorts. While many Nattys disagreed with those using AAS, they framed their own interests in AAS and subsequent bodily effects of AAS as academic and investigative. One poster: ‘NP,’ stated:

Thanks for sharing this information post on Tren [Trenbolone Acetate⁴] I am a natural BB [bodybuilder] and I would like to understand why you use AAS? I eat clean and train to be healthy - I don't inject dangerous stuff. I want to understand the perspective of a steroid user.

Another poster, ‘TW’ – commenting on the discussion of Trenbolone use in the same forum posted: “Being natural, this is fascinating, and I love hearing experiences and stories to understand the drug, and not just critique anything not natural”. A pro-AAS bodybuilder: ‘TD’ – with a username suggesting he was a user of Trenbolone replied: “Congrats on being natural brother – I have got nothing but respect for dudes who diet harder, train harder, do cardio, and above all are happy with your genetic limit”.

The above narratives suggest that despite some differences in perception of masculine physical goals, men conforming to different notions of acceptable bodywork can coexist in the same online spaces. However, and interestingly, The Nattys frequently constructed complex narratives as to why the male physicality of pro-AAS bodybuilders was a less legitimate expression of physical masculinity against their own natural and health-focussed understandings. Predominantly, narratives encompassed a rejection for steroid use as an infraction upon natural masculinity, some terming pro-AAS bodybuilders as “fake-alpha”, “juiceheads”, and “fragile”. While Nattys – at times – recognized and appreciated the aesthetic hypermasculine physicality of AAS-using bodybuilders; some posters concurrently marginalized this identity while upholding their own masculine notions as the most correct interpretation of time honored physical maleness and bodybuilding practices. Subordination was exercised in different non-hegemonic and hegemonic ways. Commonly, Nattys sought to ‘remove’ masculinity from the otherwise coveted motifs of pro-AAS physicality by dismissing “gains” [muscularity] as achieved via short-cuts, and thus invalid, and concurrently; by attaching connotations to pro-AAS bodybuilders of being a lesser male. A primary route to this was using homophobic slurs – a subordination method well-discussed by Connell (2005). For example, once poster: ‘FL’ commented:

I hate steroid users. They are no-good impatient losers. They get results in 1/3rd of the time. It isn't impressive or respectful, and don't you say we still work hard and diet correctly - you're just an impatient ———⁵ who doesn't want to work.

⁴Trenbolone (Trenbolone acetate) is an AAS developed for cattle livestock to increase muscle density, growth, protein synthesis, feed efficiency and total lean mass. It has never been approved (nor is designed) for use in humans. Despite this, it is a popular AAS for bodybuilding.

⁵This blank section contained the user spelling of a hate speech term. The alternative spelling is possibly to avoid the removal of postings containing words flagged for hate speech. The term has specifically been recognized as used to attack men's masculine

Another poster: ‘DD’ on a different forum posted:

I know juiceheads personally. They’re all insecure as fuck, They hide their fragile egos behind those inflated arms that will pop as soon as they go off-cycle. Some women will notice a more muscular dude easier, but she will quickly see that fake-alpha is using Tren in order to feel like a man.

‘SH’: a poster on a different forum commented on a discussion surrounding use of the AAS Anadrol (Oxymetholone); a drug predominantly used medically for the treatment of anemia and wasting in advanced HIV and AIDS (Hengge et al. 1996). Replying to a poster asking for advice regarding how to best use the drug for bodybuilding, he commented:

Taking Anadrol - a very harsh steroid - is one of the worst decisions you could make. This act renders you a ---- [same hate speech slur and spelling used in the above quote by FL] who uses shortcuts and doesn’t have the dedication to work hard and eat right. Even if you do make some gains, easy come, easy go.

The theme of pro-AAS bodybuilders disrupting already “naturally” perfect bodily abilities to exercise and build muscle mass was replicated numerous times. Comments like those above point to a disdain for temporary enhancements, suggest AAS mediated ‘gains’ are transient and, most importantly, carry connotations of hegemonic subordination over men who choose to engage in AAS use; with Nattys considering their identities and practices as the most contextually ‘time-honoured’ and correct depictions of bodybuilding masculinity.

Notably, a significant further mode of subordination; was some Nattys upheld that, once a bodybuilder had lost their ‘Natty status’ by using AAS, they could never reclaim this. Posters spoke of rebound AAS effects that weakened bodybuilders abilities – post-AAS use – to achieve specific muscular proportions or develop a coveted desirable level of muscularity. Extensions of this thinking were used by some Nattys; these men focussed on the possibly de-masculinizing side effects of AAS as triggering a loss of physical health and natural muscle building ability – and therefor defeating the dominant motifs of health-conscious masculinity that they deemed central to their own “natural” understandings of bodybuilding. Nattys employed this typing to link being ‘unnatural’ with being ‘less-masculine’ – again, using delegitimising strategies often exemplified by Connell (Connell 2005). One poster: ‘GW’ exemplified this practice in a discussion of risk vs. reward of using AAS:

Unless you want to compete in pro bodybuilding or be an Instagram model, why juice? You keep your natural gains forever, once you’re on juice you need to commit, you would look ridiculous if you suddenly lost all your gains. If you’re natural you look better than 99% of the population, so why bother juicing.

Another poster, in the same discussion: ‘JL’ voiced a similar opinion. This time, the narrative circled back to the earlier theme of subordination, intertwined with the negative physical effects of AAS use:

If you want to impress men then use roids. If you want to have sex with girls though, a natural physique with a nice looking face will beat any man with a face like a vegetable. Using juice will get you big muscles in the short term but as soon as you stop using, you’re fucked. Look at [mentions a Instagram/YouTube fitness celebrity] he looks like shit now he stopped his cycle of AAS. You will have lots of issues when you’re 40+ - I’d say juice AAS is only the option for those people who are extremely ugly so have to make up for it by being very muscular to get those small percentage of girls that like a lot of muscle.

The cyclers

Unlike the Nattys, The Cyclers represented a group of bodybuilders who actively used – and offered advice regarding AAS. These men conceptualized their masculinities in hybridized terms. Men embodied many of the pro-health notions of Nattys, yet regularly used AAS to go above and beyond what was considered achievable naturally. Comments demonstrated linkages between notions of masculinity and desired physicality. Importantly, the theme of health was paramount to Cyclers, who were often helpful and supportive to each other in offering advice for ‘safely’ using AAS. Cyclers framed AAS use as a necessary

and sexual identities in various contexts (see Pascoe 2005, 2011). I have chosen to blank the actual word used by the forum member.

adjunct to an otherwise ‘healthy [and successful] lifestyle’ and congruent with ‘acceptable’ and ‘good’ physiques resplendent of a more muscled physicality than the Nattys. Notably though, many Cyclers did not appear to seek an ‘excessively muscled’ physique, with multiple narratives suggesting motifs of going only *slightly* beyond the limits of natural achievement. As with some findings by Marshall, Chamberlain, and Hodgetts (2020), the influence of social media was mentioned. One poster: ‘SP’ best explained The Cycler mentality across a number of his own observations:

I had a good physique by natty standards. Lean and decent amount of muscle. It just wasn't enough though and I saw people around me jumping on AAS and building muscle that it would normally take two years to make in six months. I quickly realized getting that "steroid look" is physiologically impossible as a natty. I accepted the reality that the playing field was never level and If I wanted the body I desired I had to jump on AAS. I was very careful about it and did more than the required amount of research. You do not need as much AAS as you think. My first cycle was test-e [Testosterone Enanthate] 250mg/week for 12 weeks. I made solid gains and experienced almost minimal side effects. If you're like me you will strive to take every precaution. I minimise my sodium and cholesterol intake. I rarely eat junk food and I make sure that I check my blood pressure. Most people on roids however don't give a fuck.

‘SP’ later commented, replying to another poster about his reasons for leaving his ‘Natty status’ behind:

I knew it was not possible to get the "steroid look" you see on IG [Instagram] naturally. You cannot get the muscle pump, muscle fullness and hardness, and the stone-like three-dimensional look and striations being natty. It's just not possible. I know MANY people personally who are using AAS just to look good - then they start/promote their YouTube or IG [Instagram] page.

For Cyclers, AAS use was often self-regulated through stop-start ‘cycles’ lasting a few weeks to a few months before taking a break from AAS use completely. Such practice involved regular considerations for careful and informed steroid use, potential health impacts and side effects. Notably, bodybuilders often preferred to use injectable testosterone-derivative AAS, pharmacologically identical to naturally-occurring testosterone, although sometimes at greater doses than naturally occur in men. Sometimes, Cyclers opposed using AAS testosterone analogues that greatly exceed the potency of natural testosterone; facilitating exponentially increased strength and muscle growth. Usage was anchored to a perception of (synthetic) testosterone as “naturally occurring” in the body, and thus somewhat low-risk. Nevertheless, at times, this ‘natural’ perception was (somewhat incorrectly) applied to stronger synthetic AAS such as Nandrolone, which although occurs naturally in the body, only does so in trace amounts (Bricout and Wright 2004). Conversely, more powerful and potent AAS drugs (for example: Metandienone [Dianabol, aka Dbol], Trenbolone Acetate [aka Tren], Nandrolone [aka Deca], and Oxandrolone [Anavar]⁶) were – at times – labeled as harsh by Cyclers and positioned as overstepping the boundaries of acceptable AAS use. At other times, their use was encouraged, but only with careful consideration for first alternatives, and then: managing potential health and side effects. One poster: ‘AB’ exemplified this Cycler thinking during a broad discussion of AAS use. Notably, his posting exudes motifs for careful AAS use, while subordinating those using more extreme AAS compounds with little research for their effects:

There is a small risk associated with juicy lifting. In the longer run it's best to hop-on a cycle of AAS provided you're over 21 and have been lifting for a few years. What gives AAS a bad reputation is young, teenage idiots using tren on their first cycle to get shredded and not doing PCT [Post-Cycle-Therapy⁷] or blood-work. Not monitoring health factors.

A further common hallmark of The Cyclers’ discussions was a propensity to offer balanced advice to those seeking the knowledge to ‘safely’ start using AAS. One poster: ‘FT’ exemplified this standpoint, offering advice to a new AAS user planning to use the “harsh” AAS Anadrol:

⁶All synthetic and stronger metabolites of testosterone.

⁷A combination of drugs, used post-AAS cycle to restore natural testosterone production in the testes and help the body recover natural (pre-AAS use) levels of testosterone.

Drop the Anadrol and do an eight or ten week cycle of test [Testosterone] and frontload with Dbol [Dianabol]. Take an AI [Aromatase Inhibitor⁸] throughout your cycle and finish with a good PCT. Anadrol is great for building mass but for the side effects . . . it is not worth it.

Another poster: ‘SH’ said:

Since you’re set on going forward with this. This specific AAS is basically a waste at that dose. Instead use a moderate dose of Test, and stack it with [provides some other instructions]. Follow up with a comprehensive PCT. Don’t use high doses, don’t use any [mentions specific AAS compounds known to be high-risk]. BE SAFE. Good luck.

Additional to these themes, some forums also contained links to ‘stickies’; representing lengthy collected postings used as reference files that offered ordered and cataloged information on how to ‘safely’ cycle specific AAS. Often these forums encouraged testosterone usage for a first cycle, before using any other AAS. At times, some Cyclers replying to requests for information simply posted a link to these pages. For example: “Read the Wiki 500 mg Test E [Enanthate] for sixteen weeks for your first cycle. Test only for a first cycle . . .” / “You will get results off testosterone by itself or a less harsh stack” [referring to the process of ‘stacking’ multiple AAS together for stronger effects].

Examining many of the postings from Cyclers, it was clear Cyclers valued size and muscularity as central hallmarks for defining physical notions of maleness. While their AAS use was careful, AAS were employed to achieve a desirable physique congruent with The Cyclers idealized notions of -what physically it means to be a man- which differed significantly from The Nattys. However, these notions of physical muscularity as masculinity were not boundless; notably, The Cyclers often spoke of a need to ‘work up’ to using specific AAS, and AAS combinations and compounds deemed to be “harsh”. Length of AAS usage and experience using AAS were seen as badges of honor that facilitated increased acceptance and respect, which rose in parallel with physical changes; increased muscle density and size. For example: ‘SP’ commented: “I started with a low dose of Testosterone”, before going on to explain the benefits of gradual dosage increases: “I benefit from a slight increase in dose every other cycle”. SP then went on to discuss his more advanced current cycle: “Now my typical cycles looks like this: Testosterone Enanthate (750 mg/week): Anavar 5 mg a day LGD 10mg⁹ or Ostarine 15mg¹⁰ a day”. Finally, he commented: “I will be moving on to tren during my upcoming cycle”.

Such findings suggest a gradient scale to acceptable AAS use within The Cyclers category. Notably, working up to using harsh and multiple AAS can present as an accepted practice. While use of these compounds was otherwise met with subordination in many postings examined, Cyclers can ‘earn a pass’ to acceptable use of these AAS through working their way – carefully – through different levels of AAS use, which in tandem promotes increased physical growth, *and* promotes knowledge for how to safely use and manage more complex AAS agents and combinations of compounds in ways that do not attract subordination and marginalization. This is because their use is now contextualized within an ‘earned’ ‘careful’ and ‘healthy’ context that represents the core masculine hallmarks of The Cyclers bodybuilding group. Such AAS use concurrently builds a body that also reflects the physical masculine goals of The Cyclers, further enhancing legitimacy of use and reinforcing membership identity to this group.

The blasters-and-cruisers

Blasters-and-cruisers (BaCs) were a unique – and smaller – demographic of more ‘hard core’ bodybuilders. Many of these men engaged in the heavy, multi-compound ‘polypharmacy’ AAS use that was largely antithetical with the ‘healthy’ (and arguable more careful and titrated) steroid experiences promoted by Cyclers. Some referred to ‘cruising’ permanently on a high dose of AAS they found personally optimal. At times, this represented a “stack” of multiple growth compounds and different

⁸A drug used to prevent an AAS-mediated rise in excess estrogen, in men.

⁹Also called Ligandrol; A SARM: Selective Androgen Receptor Modulator drug, similar to some AAS in effects.

¹⁰Also a SARM.

side effect preventing medications taken without a planned break in cycle. In addition to this ‘stack’, some men would regularly conduct a ‘blast’. This represented ten or twelve weeks of even heavier AAS or combined AAS use. Unlike the temporal AAS use by Cyclers, some BaCs did not give their bodies a break from AAS following this period, they instead returned to their self-prescribed ‘cruising’ AAS protocol. Some of these bodybuilders openly committed to ‘always and forever’ being ‘on’ AAS. Others employed practices closer to The Cyclers. However, these were often absent of many of The Cyclers pro-health behaviors and concerns. Instead, BaCs often eschewed mentions of health costs to their AAS use, preferring instead to downplay and normalize arising risks. BaCs defined their masculinity through notions of getting physically ‘big’ and physical motifs attached to high levels of muscularity. An interesting point to note – and again one relevant for Marshall, Chamberlain, and Hodgetts (2020): – was that a minority of BaCs mentioned this BaC lifestyle as holding archetypal of many Instagram fitness influencers and public fitness figures: “You can definitely tell all of these fitness models and instagrammers blast and cruise”.

This lifestyle was exemplified best by one poster: ‘TD.’ TD was mentioned earlier; he offered a supportive perspective to a Natty asking for advice on AAS. In the same discussion, TD discussed his experiences with multi-AAS use often classified as ‘extremely harsh’ by Cyclers. He said:

My first experience of [Trenbolone] was 100mg every other day (EOD) as well as Testosterone Propionate - 75mg EOD . . . when running this cycle my libido fell, my penis was like a fuckin gummy worm. I increased the test to like 500-600, didn't do shit, someone recommended that I inject ED [everyday] to keep blood level steady and BANG it was like being on permanent Viagra. So, I was now doing 50mg tren ED and 25mg prop ED . . . Strength went through the roof; huge strength increases. I also leaned out - if I ate junk food I wouldn't gain any fat, but also wouldn't see any reductions. It definitely improved feed efficiency and when I ate clean fat was reducing much faster than it would naturally. Last time I ran tren at 100mg ED with 50mg ED test-a [Testosterone Enanthate], I knew what was coming going into it - flawless cycle, amazing strength and size gains, lost lots of fat . . . I was happier and more content than ever.

Alongside a lack of health concerns, a central motif in the above narrative from TD is discussion of side effects. In particular, BaCs experienced many side effects from their AAS use that other groups of bodybuilders such as Cyclers and Nattys would likely consider de-masculinizing, notably; lack of ability to achieve an erection and symbols of being physically unhealthy. For example, ‘TD’ also commented: “Tren raised my blood pressure and walking up a flight of stairs involved feeling like you just ran a marathon, but you will slowly adjust and then it's not-so-bad”. Other narratives from AAS users discussed shrunken testicles. One particularly salient theme related to infertility brought on by heavy AAS use. This was discussed at length by many bodybuilders belonging to the BaC cultural group, including discussions for the common use of several additional drugs alongside AAS to preserve fertility.

However, -and most surprisingly- most of these ‘risk’ factors were not conceptualized as detractors from masculinity by BaCs. This was largely because these side effects did not impact their muscular physicality; seemingly the primary symbol of their male identity. In fact, to the contrary, some side effects were at times interpreted as proof that the AAS drugs bodybuilders were using were legitimate, had been “cooked clean and potent” and were being “dosed properly”. Instead of framing these – otherwise concerning – side effects as de-masculinizing, effects were – at times – reframed as confirmation of masculinity in the sense of marking active progression toward the BaCs goals of physical progress and increased muscle growth. Thus, de-masculinizing side effects became conceptualized as pro-masculine through their attachment to motifs of physical development. In tandem, some AAS-related hypermasculine behaviors – that may be marked as undesirable by some masculinities – were framed in a similar, positive manner. It is a valid consideration that – as these hypermasculine behaviors co-occurred with side effects potentially perceived as de-masculinizing, the two effects could be perceived as balancing. For example, TD explained:

I admit using trenbolone did change my personality temporally. The first time I took it I had slight paranoia, I had recently began dating a girl and I would find myself thinking crazy things . . . like if she went on the dance floor I thought something stupid like “she's probably talking up to some guy” or “I bet some man is dancing on her and

wanting to get her number". These thoughts are completely not like me 'off-cycle', but I adjusted and it was really not bad at all. I didn't want to fight people, but I did walk into clubs and bars and feel like a lion. I thought: "If someone started something I could throw them across the fucking room" but I wasn't looking for trouble or likely to get into a scuffle, I just felt indestructible.

A further fascinating discovery was exemplified when considering the health arguments surrounding AAS use across the different masculine cultures. A notable motif of The Cyclers focus on 'healthy AAS use' was preparation for a proper Post-Cycle-Therapy regime. Broadly, PCT represents a combination of drugs taken immediately following an AAS cycle to bring the male testes back to full functionality, and restore any imbalance in hormones from exogenous steroid use. While Cyclers espoused the benefits of proper PCT usage to preserve health and restore testicular function and size, the BaCs often rejected PCT use as largely unnecessary, as while neglecting to do this carried significant health risks, conducting PCT sometimes also encouraged a slight reduction in muscle mass while the body recovered. Resultantly, the BaC group came up with creative ways within which to (re)frame the otherwise pro-health (and otherwise functionally and physically pro-masculine) PCT recovery process as actively damaging to their health. There were numerous examples of this. One poster: 'CO'; a confirmed BaC, posted: "I only ran a Post Cycle Therapy once and I was really depressed for over six months and I also lost over half of the gains I made during my first cycle. I felt awful, now I haven't come off AAS for a few months and I feel fine". Another poster: 'PR' commented: "I've been blasting and cruising for two years now – my main reasons for cruising isn't even for the muscle, but that's a large part of it. Cruising I feel a hell of a lot more improved with higher testosterone than I ever did natty. The key benefit is the confidence I have". 'KS,' another poster in the BaC category, provided a fuller explanation. He commented:

Every time I ran a Post-Cycle-Therapy in the past, I would be very emotionally affected and really disliked to see some of my muscle mass increases lost and the aesthetic effects of AAS go away. I've always kind of had bigorexia and I still have this despite people telling me I look jacked. When I ran PCT I would be more likely to jump back on AAS quicker. Now I'm cruising and feel like a million dollars, overall I rate it 10/10. I'm so happy-go-lucky about everything. On PCT, I wouldn't want to go out, I would sit in my bed with low mood all the time. I had low libido and a general super grey look to all of my life. I just blasted for 16 weeks – now, I am going to cruise for 16 weeks.

Finally, a minority of BaCs appeared to subordinate the physical and AAS practices of the other AAS bodybuilding groups. Narratives were largely interlinked with language suggesting the practices of non-BaC-associated AAS use were somehow 'less masculine' or even 'feminine.' This typing was occasional, but drew similarities with some of The Nattys frequent subordination of anyone who used AAS. For example, one poster, 'KK' employed this typing in a discussion surrounding concerns over another BaC poster being 'shutdown.' In AAS-related bodybuilding, the phrase 'shutdown' is commonly used to refer to significant testicular shrinkage caused by exogenous AAS use, which results in the testes producing almost no testosterone, as testosterone or testosterone-like compounds are now being received into the body from an external source. Consequently, the testes rapidly shrink as the body becomes used to regular AAS use and is no longer required to produce its own hormones. Most of the BaC posters recognized and accepted this occurrence as a natural consequence of heavy and prolonged AAS use. However, a minority were concerned for this and attempted to combat "shutdown" by injecting HCG [Human Chorionic Gonadotropin]¹¹ or HMG [Human Menopausal Gonadotropin]¹² and using other compounds in addition to their AAS use. Replying to concerns of 'shutdown' from one poster – 'KK' said:

What's so bad about permanent shutdown? You get "shutdown" from being an old cuck [cuckhold] and phytoestrogen in what we eat and because of the water anyway by 30 TBH [to be honest]. So meh [referring to testosterone declining in men after 30 years of age]. Everything you require will be fertility. You can do that on blast. Inject 75iu HMG on Monday, Wednesday, Friday. Inject 2000iu HCG Tuesday, Thursday, Saturday - 70 days there you go. You can remove the only problem if blast and cruise. Besides that: injecting weekly if you're a puss - might as well cruise on 200 permanently at least [referring to 200mg of Testosterone].

¹¹A hormone-related drug made from the urine of pregnant women.

¹²A hormone-related drug made from the urine of post-menopausal women.

Most notable of KK's response is his refutation against the de-masculinizing physical occurrences and typing associated with being "shutdown". He begins with an immediate defense of this typing: "What's so bad about permanent shutdown?", before responding with an overt attack on the original poster's masculinity: "You get "shutdown" from being an old cuck ...". Finally, he subordinates (using hegemonic typing linked to femininity as a negative slur) AAS injection practices that are infrequent: "... if you're a puss ... [pussy]", suggesting instead the benefits of injecting at least something every day.

The Blasters-and-Cruisers were a fascinating group. Notable of many BaCs is that they sought to reframe traditional notions of masculinity in ways that lent to justifying their sense-making practices for heavy AAS use; and goals of high muscularity, seemingly at all costs. Above all else, BaCs appeared to conceptualize their masculinities in ways that normalized AAS-associated risks and explicitly rejected de-masculinizing labels that could readily be attached to negative side effects of AAS use that affect traditional masculine motifs. For example, sexual function, sex organs, physical health, prowess, ability and male fertility. Narratives revealed that BaC bodybuilders often understood their male identity as predicated upon their extensive AAS use; the resultant hallmark of this symbolized as continued high muscle growth and muscular appearance. This appeared a somewhat unshakable mind-set, eclipsing and antagonistic to the muscular – yet natural conceptions – of The Nattys, and the muscled yet temporal and 'careful' pro-AAS notions of The Cyclers.

Discussion

Most significant of existing studies examining masculinity and bodybuilding – that also explore AAS use – is that men's local notions of bodybuilding masculinity are often considered singular local constructs with homogenous 'muscle building' goals, practices and perceptions. At times these constructs are referred to as 'hegemonic masculinity' (Andreasson and Johansson 2019; Marshall, Chamberlain, and Hodgetts 2020; Underwood 2018; Vallet 2017). Sometimes, this thinking suggests men engaged in bodybuilding practices chase a normalized, singular representation of physicality in similar ways. While some non-sociological, health and drug education research suggests alternative and multiple constructs of identity for the men who use AAS, this is not linked directly to notions of masculinity save for a brief mention of 'asserting masculinity' (the YOLO AAS user) and masculinity representing image and desirability (the well-being AAS user) (see Christiansen, Vinther, and Liokaftos 2017).

Within the relatively small sample exemplifying local understandings of online bodybuilding masculinity analyzed for the purposes of this research, three distinct, local conceptions of bodybuilding masculinity are evident. Each carry their own contextual and embodied understandings for what it means to be a man and detail how this apex may be achieved through different bodily development and specific AAS use or rejection. Some men subordinate other men belonging to different cultural groups using negative descriptors aimed to delegitimise these masculinities in line with Connell's hegemonic theorizing (Connell 2005), some men do not. Importantly, conceptions of masculinity were highlighted as hybrid and fluid. For example, the cultural group The Cyclers embodied much of the ideologies of The Nattys vis-à-vis notions of positive health behaviors, celebrating careful care of the body and body practices. However, at times members of this Cycler group also drifted into practices deemed typical of the BaCs group. The main differentiator of the heavy AAS use and associated physical developments seen across both cultures was The Cyclers' motifs of care and consciousness for health, and a propensity to take breaks in AAS use and to 'work up' to using "harsh" and 'heavy' AAS. This was to preserve the attachment – or perhaps illusion – of safety.

Implications for practice and future research

Findings have implications for masculinities theory specific to the albeit niche study of bodybuilding and masculinity, and applications for subsequent studies examining bodybuilding-AAS trends. Outcomes suggest that local-level masculinities – even specific within the collectively considered

genres of bodybuilding – exist as distinct cultural bubbles, containing transient actors that move between multiple and distinct masculine groups. Concurrently, the cultures identified here: The Nattys, Cyclers, and Blasters-and-Cruisers remain unique in their notions and understandings of masculinities: ‘maleness’ and how identity is enacted and achieved. Some of these separate cultural masculinities at times employ ‘hegemonic’ typed practices to subordinate or marginalize other groups as ‘less masculine’ or ‘less worthy’ despite all existing within an overarching local masculine group of bodybuilders. This is an important point relevant for future study. Most saliently, each masculine culture considered their bodybuilding goals, AAS use, and practices as the most resplendent and correct archetype of desirable physical identity. However, the disparate conceptions of masculinity that define each culture resist the collapse of these stratified masculinities into a singular ‘hegemonic,’ time-honored ‘bodybuilding’ masculine archetype, as these notions of revered masculinity differed across each cultural group. This paradigm actively resists notions of an overarching collective consent toward a singularly local ‘hegemonic’ bodybuilding identity that all men position themselves against, even in the niche, local-level grouping of male actors engaged in bodybuilding and discussing bodybuilding and AAS in online groups. This is because both physical and AAS-related masculine concepts were envisioned, internalized, and acted-out differently, by different groups of men, in ways that prevent reduction of these cultures from distinct multiples toward a unified ‘time honoured’ singular.

To develop accurate representations of bodybuilding identities and actions, future studies should depart from generalizations of bodybuilding as a ‘one-size-fits-all-men’ activity, *and* resist a de facto interlinking of size and strength with labels of ‘hypermasculine’ and ‘hegemonic,’ unless such descriptors can be evidenced in practice through men’s bodybuilding behaviors, intentions or actions.

Strengths and limitations

Research was conducted online, during the Covid-19 pandemic in 2021. Analysis was conducted using the single-researcher approach – that Marks (2015) terms the “monk” approach (p. 494). This involves the solo researcher longitudinally embedding with a (self-proclaimed) high degree of interest and focus within the qualitative source data, to formulate themes into formal categories of analysis and come to ‘know’ the complete data-set to a high degree of familiarity. This method borrows from historic solo-ethnographic-based anthropological research analysis practices and is distinct from the “quad-squad” method of collaborative research, (Marks 2015: 494). The aim of utilizing this ‘monk’ method was to attempt a replication of the ‘intense knowing’ frequently associated with solo ethnographic research ventures and later data embedding (Brewer 2000), yet now in an online, isolated digital context befitting for the Covid-19 climate of much of the global world (Bowler 2010; Kozinets 2002, 2015).

A second aim was to trial the ‘solo’ approach to allow the researcher to experience this method (as a champion of primarily collaborative methods), and draw later distinctions with the arguably now-more traditional collaborative approach. Collaborate research is important, and the merits of multi-disciplinary-team collaborative research are clear and extensively documented. However, some scholars uphold the additional and alternative benefits of intensive ‘solo’ based research, particularly where the researcher has a high degree of interest (and experience and insights) with the subject matter, that could afford additional layers of perspective, understandings and nuance to be highlighted in complex and wide-ranging data samples (Cheah et al. 2018; Chen 2012; Kennedy-Clark 2012; Marks 2015; Strauss 1987). This approach (or similar) has also shown popularity for some emerging online-based ‘netnographic’-styled research (Larsen 2014; Sano 2018). Reflecting on this approach: analysis represented – at times – a challenging process, which revealed some limits to electronic analytical tools. Namely, this researcher found the breadth of qualitative data difficult to quantify into the narrow categories of analysis required to maintain a manageable data portfolio in the software tools used. **Additionally, and although within netnographic methods, the practice of extracting user-postings from websites, forums and specific threads is common, this scholar found that this process delocalised user-postings, and their discursive and interactive nature from the wider context in which they were created. Thus, -at times- extracted postings were traced back to their online origins, and their placement in various forums,**

forum-threads, and topic categories was used for triangulation; to establish further context and contributions to clarify analysis. While this allowed for more in-depth understandings of the context of postings, it no doubt further complicated analysis. This experience highlighted limitations with the netnographic practice of extracting user-postings; distancing these from the natural -richer-context in which they were first created.

Further, collaborative research invariably allows for new perspectives to develop on seemingly concrete findings. Thus, while this research allowed for an ‘intense and in-depth’ perspective to the data collected, that at times required the researcher to draw on their own knowledge and experiences to recognize and highlight themes and link occurrences and intentions, the design does not actively mitigate any unconscious and unintended researcher biases (which while many researchers deny, may be unconsciously present). Thus, it is prudent to suggest that further research in this topic area is required before concrete conclusions can be drawn.

Considering the structural limitations of a given research methodology is also important. Data for this study was collected from publicly available bodybuilding forums. As Larsen (2014) points out in his own solo-researcher netnographic study focussing on online image perception of Shanghai city branding: “It is [...] important to be mindful that the subject of this study is not the individuals, but rather, their online posting[s]” (p. 22). To this end, there is no discernible proof that content individuals post online comprises a true and accurate representation of their ‘real life’ beliefs, attitudes, values, or actions. The natural distance provided by online research (and ethical considerations) prevents the researcher asking any questions to ‘participants’. Thus, it is difficult to make concrete inferences from data drawn from such online locales, due to uncertainties surrounding authenticity of representation. However, some scholars argue the same complications are true (yet often downplayed) of much direct ‘face-to-face’ research (Hammersley 2006). Scholars suggest that, in fact, many individuals may be more likely to be truthful online, where anonymity is more readily achieved.

This consideration aside, it is important to consider objectively the sample of individuals posting on the forums analyzed in this research. While forum postings at times appear to be considered by some scholars to be representative of a general, worldly sample, this is likely not the case, with individuals posting on forums possibly representing a niche -enthusiastic- sub-set of a special interest group. Therefore, findings of this study vis-à-vis identities and masculinities should not be considered as generally representative of ‘bodybuilders who use AAS’, as findings are extrapolated from a specific online sample. More ‘real world’ research should be conducted to validate -or refute- the linkages between identities and AAS use established in this work.

Conclusion

Existing studies vis-à-vis masculinities, bodybuilding and AAS use, sometimes generalize bodybuilding identities: physical development, sense-making and how this is achieved – into broad categories of ‘bodybuilding masculinity’, ‘bodybuilding hegemonic masculinity’ and ‘masculinity and steroid use’. However, new studies should recognize the multiplicity of so-called ‘hegemonic’ masculinities within bodybuilding communities, and examine how men attached to such different cultural groups prioritize and reject different AAS use to achieve their different physical goals. Such acknowledgments are paramount to develop more nuanced and detailed sociological understandings surrounding the construction of different socially negative, positive, and neutral masculine bodybuilding practices and what notions and construction processes of identity underpin these. Continued study is necessary to expand masculinities theory in ways that enhance application to bodybuilding-AAS research, and facilitate development of alternative and multiple masculine descriptors that do not reduce complex and multiple cultures of identity to a singular categorical label that simplifies otherwise stratified social identities and attached cultural practices. Progress is important. As of 2023, the fields of physicalities studies, change and human identities are rapidly growing in importance, with significant uptake in research exploring increases in AAS use in all genders and research linking growing social media influence over men’s propensity for desires of enhanced physical change.

While the methodology used for this research is reflective of (and fitting for) the restrictive research climate of Covid-19, further study using non-distanced traditional methodology and collaborative design would be a logical next step to grow investigation in a more traditional context. Although, face-to-face research on such subject-matter likely comes with its own caveats, for example, a possible reluctance for participants to speak with the candidness they afford to anonymous online discussions. Despite any limitations, this research presents some important theoretical perspectives, and highlights notes on methods and research journey that voice important insights relating to the topic under investigation, the temporal global pandemic context research was conducted within, and the limitations of discussed research approach.

Ethical approval

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