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“I go back to it every f**king time”: the normalization of problematic Trenbolone use in online anabolic-androgenic steroid communities

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ABSTRACT

Introduction: This study addresses the dearth of research on specific anabolic-androgenic steroids (AAS), focusing on the contentious substance Trenbolone. With increased potency and risks, Trenbolone's effects, both in animal studies and among human users, raise concerns for neurodegeneration, genotoxicity, and significant social harms. Despite these risks, people persist using Trenbolone and other AAS, navigating the harm-to-benefit ratio. The study explores the representation of Trenbolone in online AAS forums, to gain nuanced insight into dynamics of identity and behavior specific to the Trenbolone context.

Methods: We employed a digital ethnographical approach to collect data from four Australian AAS forums. Grounded in a social constructivist framework and recognizing the influential role of identity and social categorization in shaping behaviors within these digital communities, we utilized inductive thematic analysis to identify patterns and themes from user discussions about Trenbolone.

Results: Three key themes were developed: shared cultural language and beliefs, experienced users' perceptions of Trenbolone mastery and risk avoidance, and the normalization of problematic use of Trenbolone and signs of dependence within the community. The findings reveal a nuanced interplay of language, beliefs, and behaviors, providing insights into how the community navigates its cultural norms, showcases expertise, and collectively grapples with usage patterns.

Conclusions: We delineate the emergence of a 'Trenbolone prototype' within online AAS-using communities. The findings point to a potential disconnect between community beliefs and empirical evidence on Trenbolone's health effects. Addressing these disparities, public health campaigns should align with the community's language and norms for effective harm reduction.

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Introduction

Research on the effects of specific anabolic-androgenic steroids (AAS) is largely absent in the current literature. Recent studies, however, have begun to focus on experiences of risks that specific AAS pose to users (Underwood, 2022; Piatkowski, Neumann, Dunn 2023). One such substance that has become a subject of great contention amongst people who use AAS is Trenbolone (often referred to as 'tren'), due to its propensity for harm (Beg et al. 2007; Aknouche et al. 2021; Zellerroth et al. 2021). Trenbolone is recognized for its ability to rapidly increase lean muscle mass while minimizing fat accumulation or promoting fat loss (Yarrow et al. 2011). However, these benefits come with a greater risk profile than that associated with any other AAS (Piatkowski, Neumann, Dunn 2023). Trenbolone has been evidenced in animal studies to have considerable adverse effects such as neurodegeneration (Morthorst et al. 2010; Quinn et al. 2007)

and even in low concentrations has been suggested to have genotoxic effects (Richold, 1988; Beg et al. 2007). Additionally, for humans, Trenbolone has been found to have greater social harms than other AAS (Underwood, 2022) which is concerning due to approximately 30% of AAS users in Australian samples incorporating it in their cycle (Dunn & Piatkowski, 2021). Consequently, while recent studies have shed some light on the risks associated with Trenbolone, there remains a critical gap in the literature regarding the nuanced understanding of its effects, particularly concerning its social and psychological impacts, among those who use it. Therefore, further research is warranted to explore the complex interplay between knowledge, social dynamics, and the promotion of Trenbolone within IPED communities.

Discussions related to AAS, once predominantly conveyed through face-to-face means, have witnessed a surge among digital communities (Tighe et al. 2017), particularly

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among online forums, fostering an environment where do-it-yourself practices have become common (Henning & Andreasson, 2022; Turnock et al. 2023). Online AAS forums serve as repositories of extensive information on AAS, where users share personal experiences and disseminate scientific literature (Tighe et al. 2017). When considering the factors shaping behaviors and attitudes within these forums, it becomes evident that social identity (Tajfel & Turner, 1979) plays a crucial role. Social identity approaches assert that individuals align actions with in-group norms through social categorization, shared group memberships and, thus, conformity to the in-group prototype (Hogg & Turner, 1987). Group prototypes transition to consensual norms, influencing behaviors (Abrams et al. 1990), with evaluation based on embodiment of prototype attributes (Hogg, 2000). However, since its inception, the social identity approach has evolved significantly beyond its original scope.

The broad adoption of this approach over the past three decades underscores the enduring relevance and applicability across diverse research domains. Brown (2020) recently emphasized its overarching value in underscoring the significance of group dynamics in social life and stimulating further inquiry. Moreover, beyond its foundational principles, the social identity perspective has been adeptly employed in various disciplinary contexts (e.g. Reicher et al. 2005). It has also served as a lens through which to examine phenomena ranging from licit (Zhou & Heim, 2016) to illicit (Haslam et al. 2019) substance use within group settings. Jetten et al. (2014) argued that social groups represent crucial psychological assets capable of safeguarding health and overall wellbeing in the context of illicit substance use. However, their efficacy hinges on individuals' perception of shared identity with others or specific groups (Jetten et al. 2014).

While some social groups may indeed serve to preserve health, it is important to acknowledge that others can have the opposite effect, and this effectiveness is contingent upon individuals' perception of shared identity and group dynamics. Recent empirical research highlights the significance of understanding how AAS consumption is conceptualized, discussed, and represented within these communities (Underwood, 2017; Piatkowski, Neumann, Dunn 2023). AAS users employ 'ethnopharmacological' methods (Monaghan, 2002) to inform their practices, which are facilitated through peer interaction, knowledge exchange, and collective risk management strategies within these subcultures (Piatkowski & Cox, 2024). However, despite this rich landscape of practices, there remains a gap in our understanding of the specific types of information sought and disseminated within these communities concerning Trenbolone. Therefore, our study aimed to address this gap by examining the nuanced dynamics of information sharing and dissemination surrounding Trenbolone use within online AAS communities. Through this investigation, we sought to contribute to the broader discourse on AAS use by shedding light on the intricacies of information exchange and its implications for individual behaviors and community norms.

Materials and methods

Ethics

This research was approved (number: 2023/390) by the University Human Research Ethics Committee. According to the terms of use of the forums analyzed, there is no mention of the use of their content for research purposes, and therefore, there is no violation of their terms and conditions. Participants in these forums are aware that their posts are publicly available and, therefore, it is assumed they have considered what they post could be read by anyone and everyone.

Data collection

An online search for 'Australian bodybuilding forums' and 'Australian steroid forums' was conducted using Google.com.au. Forums were selected for analysis if they meet the criteria of (1) being predominantly Australian, (2) have active users daily, (3) accepting of and has a significant amount of discussion surrounding Trenbolone and (4) be publicly accessible and searchable without the need to register an account. Four forums fit the criterion: brotherhoodofpain.com, ausbb.com, bs-board.org, www.evolutionary.org. Although the selected forums are primarily Australian, users from other countries are anticipated to be a minority, aligning with prior research findings (Tighe et al. 2017). This study collected primary data from online forums by extracting posts from threads related to 'tren' or 'trenbolone'. The data collection process involved the first 10 pages or 50 initial threads, depending on the forum's structure, a method used in previous research (Tighe et al. 2017). These cutoffs were chosen prior to collection due to the potentially vast nature of information related to topics on these forums (Tighe et al. 2017). These marked threads with usernames were copied into NVivo (Version 12) for analysis, but usernames were excluded during material quoting in the final analysis.

Data analysis

We utilized a digital ethnographical approach (Pink, 2016) where the digital ethnographer engages in the role of processing the collection of textual and graphical data available on digital mediums and attempts to make sense of their meaning (Gibbs & Hall, 2021). Doing so involves 'lurking' in online communities, passively observing the behavior of users and the norms of the community to become familiar with the culture (Gibbs & Piatkowski, 2023). Whilst 'lurking' we collected 'unsolicited' textual data and subjected it to analysis. This is a strength of the methods, which allowed for naturally occurring discourse to be analyzed. Grounded in a social constructivist framework (Adams, 2006), we employed inductive (Thomas, 2003) thematic analysis (Braun & Clarke, 2019, 2023). Selected threads were thoroughly read to establish data familiarity, and each post was coded based on content for subsequent grouping. After coding and organizing, the research team conducted a

comprehensive examination of threads to ensure coherent patterns within themes. Subsequently, all data underwent reexamination to validate post alignment with established themes and identify any overlooked data fitting into the thematic structure. During this reexamination process the research team met several times to reflect on their positionality and relationality (Zampini et al. 2021) with the AAS-using community. In total, 62 threads and 1481 individual posts from 418 unique users across four online forums were analyzed. Three overarching themes were developed.

Analysis and discussion

Shared cultural language and beliefs: 'respecting tren at all times'

Communication dynamics within the Trenbolone community exhibited distinctiveness compared to other AAS communities. Members frequently employed colloquialisms, metaphors, and personification, often adopting a humorous tone despite addressing serious topics. The humorous tone, often observed in group communication, serves to strengthen group cohesion (Piatkowski et al. 2021). In this context, the use of colloquialisms not only contributed to group cohesiveness but also served as a means for members to express their alignment with in-group norms.

Tren for President!

TrenTopia!

That's just Trentastic

In-group communication processes in this community involve creating 'wordplay' by combining the term Trenbolone with other words to describe potential side effects. Members use this shared language to express affiliation and adherence to group norms, reflecting the cultural narrative associated with Trenbolone. This aligns with previous findings in online muscularity-centred subcultures, highlighting the effectiveness of in-group language in conveying distinct group beliefs (Piatkowski et al. 2021).

Trencough, trensomnia, trend*ck and all the other tren sides

Trenbolone and other AAS were consistently labeled as 'compounds' rather than 'drugs.' While this terminology aligns with academic literature practices (Tighe et al. 2017), it may suggest a deliberate choice to mitigate stigma associated with the term 'drug.' This linguistic adjustment, known to be effective in stigma reduction efforts (Kelly & Westerhoff, 2010), could signify a conscious effort by AAS users to differentiate themselves from other illicit drug users.

Tren is a rocking compound

Metaphors were frequently utilized as a means of communicating the experiences of using trenbolone to either advise caution or to enhance the sense of unity. Users commonly responded affirmatively to posts of this nature, expressing enthusiastic agreement and a resonance with the metaphorical content. The discourse surrounding these metaphors highlights the highly personal impact of Trenbolone, fostering a shared corporeal and social

experience akin to documented occurrences with other illicit substances (Pienaar et al. 2020; Piatkowski, Neumann, Keane, Dunn 2023). These shared experiences of Trenbolone usage may play a role in strengthening social bonds among group members.

Planning on 50mg three times a week. Putting the mental health on the tight rope! Bring it on tren ...

Tren is extremely psychoactive and stimulating... it's like constantly revving and redlining your car engine to the max.

A prominent figure of speech identified was personification, particularly in users portraying Trenbolone as an entity deserving respect. Negative experiences were often attributed to perceived lapses in showing respect to Trenbolone, with successful side effect management linked to confidence in avoiding adverse effects. This personification, while not literal, signifies a shared cultural belief in the community, contributing to the mythos surrounding Trenbolone in online discourse.

Tren literally skull f**ked me in to respecting it at all times because the moment you forget BOOM it'll b**ch slap your ass

Tren is an amazing compound, but if you don't respect it your job and relationships may suffer.

Perceptions of mastery: 'but this time will be different'

Experienced users of Trenbolone, individuals who have undergone multiple cycles, conveyed a heightened internal sense of control, leading to a perceived mastery surpassing that of initiates. The identification of experienced users of Trenbolone was primarily based on self-reports provided by the individuals themselves, who often asserted having undergone multiple cycles. These seasoned users frequently offered cautious advice to initiates.

dude that is a lot of tren ... it really does a number on your health and your mental health too

These experienced users, expressing concern for initiates' safety, often engage in a form of 'gatekeeping' behavior, cautioning against practices they themselves have or currently participate in. This paradox prompts questions about the advice's efficacy and underlying motivations within the community. These users commonly associate an individual's masculinity with their ability to maintain control under Trenbolone's effects, aligning with research on the impact of perceived loss of control on masculine identity (Canham, 2009).

TREN for da real men. I couldn't handle Tren when I was younger a would get violent ... Now its diff [different] story you have to have mental and self-control for Tren!!

Experienced users commonly described that they had developed a method of using Trenbolone without debilitating side effects through trial and error. Despite past complications, they often attributed them to regimen failures rather than the drug itself. This cultural norm emphasizes the influence of individual and collective regimen factors on adverse experiences, potentially perpetuating problematic Trenbolone use by fostering a perception of internal control and the belief that modifying behavior can lead to better outcomes.

I swore I'd never take it again last year ... it messes with my head too much ... but THIS time will be different

In prior studies, Trenbolone users typically administered doses within the range of 250–600mg per week (Piatkowski, Neumann, Dunn 2023). In the current sample, there were some members who discussed using significantly larger doses of Trenbolone without reporting negative side effects. They seemed to praise its benefits, downplay reported negative effects, and encourage higher dosages, displaying a more pronounced reverential behavior compared to lower-dose users. This contrasts with the common experience of side effects reported by lower-dose users, suggesting that high-risk users may be experiencing the neurotoxic effects of Trenbolone (Zelleroth et al. 2021).

I f**king looooooove Tren. 1,000mg-1,100mg's a week. Not tired or lethargic anymore. I don't wanna snap on people. I get thermal at night a lot and sweat. F**king hard, lean and eating and drinking whatever the f**k I want baby. The gym, oh did I mention the gym lol F**king crazy at the gym brothers. Weights light feathers and veins in my arms like Pythons!!! TREN #1 MOTHER F**KERS!!!!

There are, however, experienced users that criticize this behavior, often suggesting that the high-risk users who deny experiencing any adverse effects are in denial or lack accountability.

more power to the guys that can run this shit with “no sides” but knowing what I know all people get sides from the shot. They just might not have anyone holding them accountable for their actions

Experienced Trenbolone users, following patterns observed in prior online drug forums (Marshall et al. 2015), engage in peer-monitoring as a harm reduction strategy. They establish a hierarchy, evaluating less experienced users and initiates through ethnocentric intergroup behavior (Hogg & Turner, 1987). This hierarchy promotes peer-monitoring among experienced users, who actively share insights and experiences as part of an in-group support system. Rooted in a shared sense of responsibility for community well-being, experienced users empower and guide less-experienced members, fostering a collective sense of agency.

Normalizing problematic use: 'I said last time I wouldn't touch tren again but here I am lol'

Despite encountering adverse consequences, Trenbolone users appeared to consistently reengage in use. This process shared parallels with the broader literature on individuals experiencing substance-use disorder, particularly in the context of illicit drug consumption (Strang et al. 1998; Iritani et al. 2007). The data reveal a prevailing narrative among Trenbolone users expressing a desire to discontinue its use, yet grappling with repeated, unsuccessful attempts to cease usage. This pattern suggests a process of self-negotiation, reflecting challenges akin to those observed in substance-use disorders.

Is there anyone else out there who is done with Tren? F**k me although I've said this 3 x now I go back to it and every f**king time it's all good, body recomp kicks in, strength goes up along with alpha male feeling and outta f**king nowhere a mutha

fuq'n Nuclear bomb goes off in my head and literally all f**king hell breaks loose in my life. And every f**king time I don't realize what's going on til it's too late.

[At a later date] I'm back on ... choo choo muf**rs choo f**n choo. Can't f**king whack off [masturbation] enough and the night sweats have hit. Anyone else just getting on???

Users often express a 'love-hate' relationship with trenbolone, balancing the appeal of muscle gains against detrimental mental and physical side effects. This nuanced dynamic resembles experiences observed in individuals contending with addiction to other illicit substances, where pleasure is derived from substances causing simultaneous pain (Dennis, 2017). This internal conflict serves as a reinforcement mechanism, compelling users to persist despite awareness of both positive and negative aspects of drug use. The experience of pleasure amid the compromise to well-being induced feelings of shame, which extends on previous work (Piatkowski, Neumann, Dunn 2023) and indicates a shared mechanism reinforcing Trenbolone use at the individual level.

There was an active and persistent sharing of experiences around problematic Trenbolone use, reinforced by the frequent acknowledgment of similar behaviors by other members. While expressing sentiments of support if side effects become overwhelming, users seldom manifested concern about the continued use of their peers. They demonstrated a notable awareness of their behavior, often expressing this awareness through humor and making light of the anticipated inevitability of relapses.

It really took a toll ... both emotionally and physically. I should stay away but I have bottles of it just staring at me every time I open my safe so eventually I know I will give in. Lol [laugh out loud]

I said last time I wouldn't touch tren again but here I am lol

These in-group norms, adhered to by community members, who, despite being cognizant of the considerable harm to their mental and physical health, accept the pattern of relapse as a prevailing reality. Users, even after expressing intentions to cease use, often casually report resuming Trenbolone consumption and are consistently met with support.

Implications and conclusions

This research examined the dynamics of information sharing and dissemination surrounding Trenbolone use within online AAS communities. Our analysis revealed a distinctive prototype associated with Trenbolone users, characterized by specific attributes and behavioral patterns. Notably, individuals within this community exhibited adherence to language norms, perceived mastery over Trenbolone usage, and engagement in problematic substance use despite the evident mental and physical health consequences. This prototype aligns closely with recent applications of social identity approaches, shedding light on the discrepancy observed between shared beliefs and evidence challenging those beliefs. For example, our findings resonate with the concept of identity processes in substance use contexts, as evidenced in previous research on alcohol consumption among teams of athletes. Just as team members engage in strategic

activities to signify commitment to their clubs and foster team cohesion (Zhou & Heim, 2016), Trenbolone users navigate their identity within the community by adopting behaviors and beliefs that align with the established prototype. This includes maintaining a perception of mastery over Trenbolone usage, even in the face of evidence indicating adverse health effects. Moreover, group membership can regulate drug-taking behaviors through social integration (Haslam et al. 2019). In a similar way, individuals within the Trenbolone community may engage in self-monitoring and collective regulation to maintain their identity and uphold group norms. By anchoring our analysis within the framework of social identity processes, we suggest that these processes play a crucial role in shaping the behaviors and beliefs of Trenbolone users, influencing their responses to information that challenges the established prototype. As a result, individuals strongly identifying with the community may overlook evidence challenging shared beliefs to maintain identity continuity (Hogg & Reid, 2006). Therefore, recognizing the significance of the Trenbolone prototype, the findings underscore the need for public health messaging campaigns tailored to resonate with the language and cultural norms of the Trenbolone-using community. However, the potential for Trenbolone dependence, propagated through prototypes, raises additional concerns for public health and harm reduction, given the toxic nature of AAS and particularly Trenbolone.

The detrimental impact of AAS dependence on behavioral functioning is a crucial precursor to understanding its broader effects on brain health. Long-term AAS use more generally has been associated with concerning neurobiological changes (Hauger et al. 2019). Studies reveal reduced brain volume and a diminished cortex among long-term AAS users (Bjørnebekk et al. 2017), accompanied by impaired emotion recognition (Scarth et al. 2022). Some of these neurological effects have been shown to be heightened by Trenbolone specifically, compared to other AAS (Zelleroth et al. 2021), however, we presently do not fully understand the extent of the neurological changes, or the implications as such. Further, this evidence contrasts starkly with the current data wherein Trenbolone was perceived by most online members as a benign drug, fostering strongly entrenched beliefs that resist acknowledging its potential for dependence. This belief system, not substantiated by empirical evidence, acts as a barrier to accepting contradicting information, such as research indicating reinforcing effects of Trenbolone use (Lagesson et al. 2019). The pressing question for further research is whether the overall AAS dose or specific substances, such as Trenbolone, contribute disproportionately to negative health outcomes, including dependence and its subsequent impact on brain, mental, and physical health. This critical inquiry is pivotal for comprehensively addressing the complex interplay between AAS use, dependence, and overall wellbeing.

Bridging the communication gap between harm reduction initiatives and the distinctive cultural and linguistic norms of the Trenbolone-using population can foster enhanced understanding and encourage the adoption of safer practices.

Building upon the neurobiological evidence (e.g. Bjørnebekk et al. 2017) indicating concerning changes associated with long-term AAS use, particularly Trenbolone, it becomes imperative to strategically integrate this information into initiatives aimed at fostering safer practices within the Trenbolone-using community. Highlighting the potential for these effects, specifically heightened in Trenbolone use compared to other AAS, can serve as a catalyst for promoting awareness within the community. Employing culturally appropriate language and tailoring communication to align with the distinctive norms of the Trenbolone-using population is essential for effective dissemination of this crucial information. Addressing the entrenched beliefs surrounding Trenbolone's perceived harmlessness requires a nuanced approach that integrates scientific evidence with the community's cultural context. Therefore, the next step in advancing harm reduction efforts within the AAS-using community, for Trenbolone specifically, involves engaging in a collaborative process of co-producing messaging. Considering these findings regarding the experiences and practices of Trenbolone users, it becomes evident that a community-centred approach to harm reduction may be relevant. These data revealed that individuals who engage with Trenbolone often rely on peer networks and community knowledge exchange for guidance and support. By acknowledging and incorporating these dynamics, our research underscores the importance of involving community members in shaping harm reduction strategies. Specifically, our findings demonstrate that the communication of harm reduction initiatives must resonate authentically with the experiences and values of Trenbolone users, as they are deeply embedded within their cultural context. Therefore, adopting a co-production approach to harm reduction holds significant potential to enhance the effectiveness of initiatives, as it fosters a shared understanding and relevance that directly aligns with the practices and norms observed within the Trenbolone user community. Moreover, considering the interconnected nature of online forums and the global reach of discussions surrounding Trenbolone use, a comparative analysis of international sources could provide valuable insights for developing a more globally relevant approach to harm reduction initiatives within the Trenbolone-using community.

This study has limitations that warrant consideration in future research. The investigation focused specifically on Australian steroid forums to explore Trenbolone use. However, the presence of international forum members may impact the generalizability of the results to the broader Australian population. Additionally, the inclusion criteria, requiring forums to be public and not necessitating account registration, may affect the applicability of the findings to discussions within private forums. Additionally, user-generated content in online spaces inherently poses challenges for interpretation due to the potential for false, inaccurate, or incomplete self-reporting, as well as the prevalence of performative language use. These limitations underscore the necessity for caution when interpreting qualitative data obtained from online forums.

In conclusion, anchored by a social identity approach, this study has added data informing the intricate dynamics of information seeking and dissemination in online AAS communities concerning Trenbolone. The findings emphasize the nuanced interplay between group norms, prototypes, and communication in shaping identity among Trenbolone users. Future research should, firstly, explore the role of Trenbolone on development of AAS-dependence and health problems. Secondly, research should seek to co-produce harm reduction messaging which can effectively incorporate in-group language, aligning with the cultural and linguistic conventions of Trenbolone users to enhance comprehension and promote safer practices.

Ethical approval

This research was approved (number: 2023/390) by the University Human Research Ethics Committee.

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