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The incel phenomenon: A systematic scoping review

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Accepted: 4 June 2024 / Published online: 10 July 2024 © The Author(s) 2024

Abstract

The incel community—which is characterized by an anti-feminist misogynistic ideology and has been linked with terrorist attacks—has become an increasing focus of attention among social scientists, policy makers, and professionals involved in preventing radicalization and extremism. In this systematic review we provide an up-to-date account of scientific research on the incel phenomenon. Using PRISMA guidelines, we initially identified 593 records, primarily through online database research. After full screening and duplicate removal, 78 articles remained. We divided the analyzed records into four macro-categorizations, covering theoretical, technological, violent, and personality-related components of the incel ideology. We examined the clinical implications of the analyzed findings, focusing on the potential criminological and pathological consequences related to the incel status—on a personal, interpersonal, and societal basis. Finally, suggestions regarding clinical intervention and future research foci are provided based on the knowledge gaps identified through the review.

Keywords Incel · Misogyny · Gender-based violence · Systematic scoping review · Terrorism · Manosphere

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Introduction

According to the United Nations Office on Drugs and Crime (UNODC) and the United Nations Entity for Gender Equality and the Empowerment of Women (UNODC, 2022), 81,100 women and girls were estimated to be killed intentionally in 2021. Furthermore, the World Health Organization (WHO, 2021) estimates that, globally, 30% of women aged 15 years and older have experienced physical and/or sexual violence at least once in their life. While violence against women is not a new phenomenon, there is increasing concern that certain online spaces pose an emerging threat to women's safety through the proliferation of an anti-feminist and misogynistic worldview that has already been linked with acts of mass violence (Byerly, 2020; Ging & Siapera, 2018). Incels, and incel spaces, have become among the most researched of these online spaces.

Ironically, the word "incel," a neologism that stands for "involuntary celibate," was first coined by a woman. In the 1990s, a woman who uses only her first name—Alana—in media accounts opened a personal website for those struggling to find romantic/sexual partnerships. The website was not gender-focused and was open to anyone who wanted to enter it. However, the forum ideology changed over time, developing an online subculture that had nothing to



do with its original inclusive purposes (Caruso et al., 2021; Palma, 2019). Internet and social media were employed to spread and legitimize misogynistic, racist, and violent ideals (Byerly, 2020). As we see it today, the incel community represents a subgroup of the broader online environment of the manosphere. This terms is used to refer to a loose online network of men's communities, websites, forums, and social platform groups which share broadly similar perspectives on masculinity, including anti-feminist and misogynistic rhetoric, and that often overlap with alt right or far right ideologies and white nationalism (Caruso et al., 2021; Ganesh, 2018; Ging, 2019; Nagle, 2017; Wilson, 2020). The current systematic review focuses on incels, rather than some of the other groups populating the manosphere and who share overlapping ideological positions such as Pick-Up Artists (PUA), Men Going Their Own Way (MGTOW), and the Men's Rights Movement (Horta Ribeiro et al., 2020a).

In brief, incels depict themselves as a community of males forced to stay celibate against their will. In contrast with some other manosphere groups, they appear to perceive themselves as victims. The discourse in incel spaces suggests that these individuals are frustrated by their circumstances, presenting their celibacy as an involuntary and externally inflicted situation. Incels mostly blame women for their circumstances, but they also appear to think that society and genetics play a role in their situation (Horta Ribeiro et al., 2020a; Moonshot, 2020).

A concept that permeates the manosphere is the "Pill Ideology," a metaphor taken from the *Matrix* movie. Swallowing a pill represents embracing an attitude towards life: to adopters of this ideology, choosing the Blue Pill signifies assuming a conscious decision to live a false life based on delusions; conversely, the Red Pill indicates accepting life's harsh truth and awaken from feminism's misandry (Ging, 2019; Glace et al., 2021; Marwick & Caplan, 2018; Nagle, 2017; Waśniewska, 2020). Additionally, commenters in incel spaces have extended the metaphor to include a Black Pill. This construct refers to the chronic state of despair that incels may perceive, including a fatalistic vision of life (Regehr, 2020; Waśniewska, 2020). The Black Pill ideology's nihilistic connotation may encourage both online and offline violence as a cathartic act, and it also provides an insight into risks of mental illness among incel community members, including self-harm and suicidal ideation (Roser et al., 2023; Waśniewska, 2020).

While the incel phenomenon can be interpreted as a new variation of an established misogynistic and patriarchal system, it also must be viewed within its political and cultural context. There is an established overlap between inceldom and far-right political ideologies, through shared belief systems and the occupation by individuals of both spaces within online discourses (Cottee, 2021; Nagle, 2017).

However, more recent studies have suggested that the incel phenomenon is not the sole preserve of the right, and that some incels to report a left-leaning affiliation (Costello et al., 2022).

Notwithstanding the debate on political membership, in most cases, individuals who identify with the incel ideology can be seen as fervent supporters of a return to patriarchy. As a result, concepts like hegemonic masculinity and aggrieved entitlement are essential to consider when discussing incel ideology (Connell & Messerschmidt, 2005; Ging, 2019; Glace et al., 2021). When we talk about hegemonic masculinity, we refer normative practices and beliefs that spread and entrench stereotypical heterosexual masculine values, and that continue to perpetuate a dominance of men over women. This concept furthers a sense of entitlement to women as sexual objects and legitimizes women's subordination to men (Connell & Messerschmidt, 2005; Vito et al., 2018). Aggrieved entitlement refers to a perception—rooted in the concept of hegemonic masculinity—that the privileges and status of men are being eroded (Kalish & Kimmel, 2010).

Literature has shown how aggrieved entitlement can represent a strong motivator towards violence, both on a relational (e.g., assault and rape) and societal level (e.g., mass shootings; Kalish & Kimmel, 2010; Kaufman, 1994; Vito et al., 2018). The anger of feeling wronged by women and society, perceived as the being to blame for their sexual and relational life deprivation, is transformed into revenge and acted out using violence (Kalish & Kimmel, 2010). Aggression and violence associated with incel ideology can be subdivided into three main domains: personal, interpersonal, and societal.

Self-directed violence and harm by incels have garnered less public attention than high profile cases of aggression and violence focused on others. However, statistical and clinical reports suggest that a high percentage of the incel community members report having seriously considered suicide (Hastings et al., 2020; Hoffman et al., 2020; Moonshot, 2020). Self-harm and suicide form a frequent theme in online discourse in incel spaces. Interpersonal aggression enacted by incels mainly occurs online (Chang, 2020). Indeed, incels' online language often has features of hate speech, primarily relating to sexism and misogyny but also to homophobia and racism. These themes often co-occur with violent rhetoric (Farrell et al., 2019; Jaki et al., 2019). The last domain of harm associated with incels is also the most known: societal violence. It has been proposed that incels' societal violence represents an emergent trend of extremism and terrorism (Caruso et al., 2021; Zimmerman et al., 2018). Some of the most striking manifestations of incel terroristic attacks are the Isla Vista school shooting perpetrated by Elliott Rodger in 2014 and Alek Minassian's



van attack in Toronto in 2018 (Baele et al., 2019; Vito et al., 2018; Witt, 2020). However, within the incel forums, there is an ambivalent approach toward these societal-terroristic acts of violence, thus making it difficult to attach the "terrorist" label to them as a group, especially as they do not align with the more traditional and organized terroristic groups (Sparks et al., 2022).

The incel phenomenon represents an emerging and complex issue requiring an interdisciplinary analysis. Research in multiple domains, including gender, violence, and extremism, is relevant to fully understanding the phenomenon. Indeed, consistent with this multifaceted nature, scientific research on inceldom has sometimes progressed in parallel but without sufficient integration among disciplines, potentially risking redundancy. For this reason, in the current review, we aimed to analyze the diverse theoretical approaches and systematically review the various strands of enquiry that have evolved so far. Additionally, given that empirical studies on the incel phenomenon are lacking, we intended to provide a solid base from which to elaborate on areas that need further exploration.

More specifically, we decided to adopt a systematic scoping review methodology. This approach is suitable where the goal is to synthesize research evidence and map existing literature about a specific theme, especially when the latter has not been comprehensively reviewed (Peters et al., 2015). To ensure a rigorous, transparent, and replicable methodology and to provide reliable results, we applied the PRISMA approach for systematic reviews (Grant & Booth, 2009; Moher et al., 2009; Munn et al., 2018; Tricco et al., 2018). Following PRISMA guidelines for systematic reviews and meta-analysis, we have thoroughly scanned all the relevant literature and interpreted and organized it systematically to provide insights and suggestions that may be informative for future research. Indeed, it is in the nature of the scoping review to illustrate the knowledge gaps in the literature of a specific topic and to, therefore, identify and suggest future research initiatives (Munn et al., 2018). The literature gathered through the scoping review process has been arranged thematically in categories and narratively described (Arksey & O'Malley, 2005; Grant & Booth, 2009; Levac et al., 2010).

The primary aims of our review were to examine how research is conducted on the incel phenomenon and to identify and analyze gaps in the knowledge base about it (Colquhoun et al., 2014; Munn et al., 2018). The review may provide a resource for future meta-analytic work once the evidence base has expanded sufficiently. Additionally, we hope this work will serve as a helpful guide for clinicians and professionals to update their knowledge on this phenomenon and will aid in developing ways of working

with people who identify as incels or with the interpersonal and societal impacts of inceldom.

Methods

To conduct a systematic scoping review of involuntary celibacy, we adhered to Moher and colleagues' reporting checklist and employed the PRISMA analysis approach (Moher et al., 2009; Tricco et al., 2018). Research articles on incels were categorized based on recurring themes, following the main approaches adopted by authors studying the subject. Due to the absence of quantitative empirical studies, a meta-analysis was not feasible. Nevertheless, this analysis may help in maintaining current, comprehensive knowledge of this emerging phenomenon.

Eligibility criteria and search strategies

The primary inclusion criterion was the presence of the terms "incel*" OR "involuntary celibate*" in the records' title, abstract, or keywords. In cases where term location could not be restricted, we conducted comprehensive searches across the entire text. The string of Boolean indicators used was:

"incel* OR involuntary celibates AND (violence OR analysis OR empirical OR misogyny OR terrorism OR systematic OR review OR meta-analysis OR metaanalysis)."

The literature search for records about the involuntary celibacy phenomenon started in December 2020 while collecting material for a master's thesis titled "Who are the involuntary celibates? A Scientific Literature Review" (Aiolfi, 2021). We expanded and refined our search following the PRISMA analysis approach (Moher et al., 2009) starting from September 2021. The databases utilized included Scopus, PsycINFO, Web of Science, and Google Scholar's advanced research. Any type of record (book, article, review, etc.) from 2017 to April 2022 was considered. In a subsequent step, we paired the terms "incel*" OR "involuntary celibate*" with additional keywords such as "violence," "misogyny," "terrorism," "personality," "analysis," "empirical," "systematic," and "meta-analysis."

In addition to systematic database research by keywords, supplementary strategies were adopted. Specifically, the Google Scholar "cited by" function was used to identify articles related to selected papers of interest. Moreover, the reference lists of relevant papers were examined. Finally, we reviewed the conference programs of the European Association of Psychology and Law (EAPL) for 2019–2021



(virtual for 2020 and 2021), and the American Psychology and Law Society (AP-LS) for 2014–2020.

Results

The PRISMA diagram illustrating the records selection process is shown in Fig. 1. Initially, 593 records were identified. After duplicates were removed, 231 records remained. After screening the title, abstract, and keywords, 132 articles were excluded; the latter has been subdivided in

appendices— from Appendix B to K— which are provided as supplementary material in the Online Resources. Specifically, 67 articles were excluded because their content was extraneous to the matter of research, or because of the Boolean indicators chosen (see Appendix B; Online Resource 1) and 47 articles were excluded because of homography issues (see Appendix C; Online Resource 2). Other articles (n=12) regarded topics potentially related to involuntary celibacy, but their focus did not relate explicitly to incels. It is possible that some keywords adopted for the database search introduced too much breadth in the search strategy,

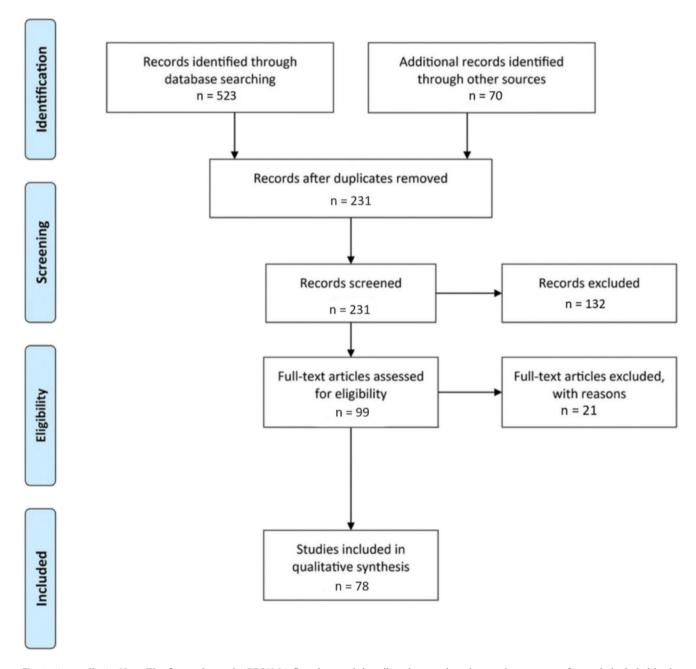


Fig. 1 Appendix A. Note. The figure shows the PRISMA flowchart and describes the search and screening process of records included in the systematic scoping review

particularly with the terms "violence," "analysis," and "systematic" (see Appendix D; Online Resource 3). Finally, although relevant to the systematic review, six articles were excluded because it was not possible to have full access to the text record (see Appendix E; Online Resource 4). Lastly, among the full-text articles assessed for eligibility (n=98), 21 were excluded (Appendix F; Online Resource 5).

The remaining 78 sources were divided into categories to organize and explain the knowledge gained from the material collected. After carefully reading and analyzing the literature, we concluded that four main approaches exist within the research panorama in terms of studying the incel phenomenon:

- 1. Attitudes and beliefs relating to the incel ideology; articles that have deepened the theoretical aspects of the incel phenomenon and its context.
- The role of technology in facilitating the development of the online incel community; articles that explored the technological aspects implied with the development of the online incel community.
- 3. *Aggression and violence*; articles concerning aspects of violence related to the incel ideology.
- Mental health and personality; articles analyzing the main personality traits associated with the incel community and possible indicators or predictors of engagement with incel spaces or ideologies.

Finally, a few records did not map specifically onto the above categorization and were therefore analyzed individually.

Attitudes and beliefs relating to Incel ideology

Given the online nature of the incel phenomenon, the main research approaches utilized were purely linguistic, as the primary goal was to try to understand the phenomenon from the inside. Language analysis has been the most frequently adopted methodology in empirically studying incel ideology. Thanks to text and thematic analyses, scholars have managed to discern and categorize incels' narratives. This approach has also made it possible to decipher the jargon and specific terminologies associated with incel discourse and to create helpful glossaries for non-specialists (e.g., Moonshot, 2020). Among the records included in the systematic scoping review, seventeen sources analyzed the theoretical and ideological framework behind the incel phenomenon (see Appendix G; Online Resource 6).

The leading approach of the research contributions included in this category was to analyze the manosphere's discursive practices, identify critical categories of members' narratives, and map the dominant rhetoric (Glace et al., 2021; Høiland, 2019; Horta Ribeiro et al., 2020a, b;

Maier, 2022; Williams, 2020). A recent study examined dialogues taken with ten people directly involved in the incelosphere, through semi-structured interviews and openended questions (Daly & Reed, 2021). An overview of the recurrent themes in the interviews was provided, showing that the most frequent issues tackled by self-identified incels were related to masculinity challenges, the Black Pill ideology, social rejection, the use of violent and misogynistic language on online forums and social media, and, eventually, the negative emotions resulting from living as an incel (Daly & Reed, 2021).

The theme of masculinity is central in the incel ideology, primarily referring to hegemonic masculinity and the perception that male status has been undermined by feminist progress (Daly & Reed, 2021; Ging, 2019; Glace et al., 2021; Han & Yin, 2022; Menzie, 2020). Sometimes, incels' narratives and worldviews also acquire political connotations that fit the tendency to blame women and their societal advancement as obstacles to returning to patriarchy and traditional masculinity ideals (Fowler, 2021; Ging, 2019). Those concepts align with views and theories that appear widely held within the manosphere, of which the incel community represents a subgroup (Han & Yin, 2022).

A further concept that the incel ideology has taken from the broader manosphere is the pill theory, which incels have further adapted into the Black Pill concept (Lindsay, 2022; Waśniewska, 2020). As previously explained, the Black Pill metaphor almost equates to the Red Pill ideology, but with no hope for social and personal change. Swallowing the black pill means accepting the immutable truth that incels are powerlessly bound to the overarching ideology that women are denying them the achievement of a place within society and the sexual world (Fowler, 2021; Lindsay, 2022).

Some studies analyzed language as a tool to establish community boundaries and described the theoretical and socio-political framework surrounding the incel community—including the prevalent assumptions, values, and beliefs underlying it (Ging, 2019; Glace et al., 2021; Horta Ribeiro et al., 2020a, b; Maxwell et al., 2020; O'Malley et al., 2020). Indeed, members of the incel community adopt their own distinctive lexicon to explain their views of the world, society, and individuals within their forums (Waśniewska, 2020). Language and terminology represent a shared component among the incelosphere communities: they are used to establish ingroup solidarity and to identify members of the incel community (Jones, 2020).

Lastly, another important concept that delineates the incels' worldviews is physical attractiveness (Koller & Heritage, 2020; Menzie, 2020; Waśniewska, 2020). Incels have a specific view of the world and society they live in, and body and physical appearance represent a constant on which these views are built (Ging, 2019). According to



them, males and females can be divided into categories based on physical appearance and attractiveness (Koller & Heritage, 2020). In line with this, members of the incel community strongly focus on their physical characteristics as an obstacle to obtaining intimate relationships and sexual intimacy (Lindsay, 2022; Daly & Reed, 2021). Indeed, incels attribute their lack of sexual experiences to their perceived unattractiveness, as they view themselves as suffering from numerous physical shortcomings (Menzie, 2020). Particularly, they focus their attention on certain physical features, such as skull dimensions, thin wrists, small stature, weak jaws, large noses, poor musculature, and misaligned eyes (Preston et al., 2021).

The role of technology in facilitating the development of the online incel community

Recently, research on the incel phenomenon has also focused on more technological aspects, providing new insights and adding knowledge to detecting the phenomenon through artificial intelligence tools (n=6; see Appendix H; Online Resource 7). Jelodar and Frank (2021) applied natural language processing (NLP) techniques, namely a semantic analysis, to analyze incel comments from the now-closed online forum incels.co. The aim was to identify the key topics mobilizing the incel community and use the material to benefit Artificial Intelligence (AI) in designing social strategies to prevent misogyny and hostility towards women. According to Preston et al. (2021), members of the incel community argue that dating apps and social media exacerbate their involuntary celibacy condition. Indeed, through their narratives, incel community members suggest that new technologies provide women with access to a larger number of potential mates, amplifying their power of choice to "upgrade" their partner. At the same time, it allows dominant men to simultaneously search for women both in real life and virtual life, monopolizing what is seen as a sexual market. The result, according to incels, is an unequal distribution of sexual access to women, consequently cutting them off from this sexual market (Preston et al., 2021). This aligns with a study by Brooks and colleagues (2022). After analyzing and geolocating incels' activity on social media, they showed that a higher number of tweets and posts came from areas where male mating competition was higher due to smaller chances of finding single women and smaller gaps in gender-income differences (Brooks et al., 2022).

Papadamou and colleagues (2021) performed a content analysis of both videos and comments on YouTube and Reddit to analyze the incel community on YouTube to test for possible radicalization processes online. Results indicated increased incel activity on YouTube over the past few years in videos and comments. The latter may have occurred in

reaction to the ban on Reddit forums, particularly those subreddits identified as inciting violence against women (e.g. /r/Incels, /r/Braincels; Papadamou et al., 2021). These scholars also found that the YouTube recommendation algorithm is likely to suggest incel-related content, pushing users towards incel communities. This recommendation process suggests the presence of the echo chamber effect (Papadamou et al., 2021). Finally, two research contributions proposed methods to implement incel detection within social media and forums. Hajarian and colleagues (2019) proposed an incel-detection methodology based on the "likes" assigned to other users within social networks. Using a dataset that included users' likes and fuzzy likes (i.e., approximate likes that can define the intensity and level of each like; Hajarian et al., 2019), researchers suggested an algorithm to identify people who think women are not attracted to them in social networks. The algorithm accuracy in detecting incels was 68.75%. In 2021 the accuracy results were bettered by adopting sentiment analysis paired with NLP methods to detect offensive language (Hajarian & Khanbabaloo, 2021). The proposed methodology correctly identified 78.8% of incel users, increasing the accuracy rate by 10% compared to the likes and fuzzy likes study (Hajarian & Khanbabaloo, 2021).

Aggression and violence

In the research literature on involuntary celibacy, violence is a recurring topic of discussion. This systematic review encompasses thirty-one records that focus their analysis explicitly on online and offline harm related to the incel ideology (see Appendix I; Online Resource 8). The high number of articles included in this category makes it the largest in our review; this suggests that a primary motivator of academic interest relates to the risk of violence attached to the incel phenomenon.

Many articles tackling aggression, violence, and the criminological implications of involuntary celibacy focused explicitly on the violent nuances of the incel discourse. Literature shows a connection between discourse and reality, linking incels' narratives online and violence enacted offline (Brunson, 2021; Palma, 2019). In line with the latter, research has shown that some incels actively participating in the online community had a history of violence towards women, including previous instances of harassing women, sexual misconduct, and misogynistic approaches towards them (Byerly, 2020; Longo, 2020).

Since aggressive and violent content is widespread in the incel forums, the mechanisms through which misogyny, hate speech, and radicalization processes translate into violence are recurrent topics in the analyzed contributions (Farrell et al., 2019; Jaki et al., 2019; O'Donnell & Shor, 2022;



Prażmo, 2020). Baele and colleagues (2019) suggest that the incel community's worldview (i.e., a set of beliefs and interpretations of reality) might be particularly conducive to violence. This concept is made quite explicit in those studies that have analyzed the content of manifestos written by mass killers who have been linked with the incel phenomenon (Murray, 2017; Vito et al., 2018; Witt, 2020). Additionally, devaluation and dehumanizing metaphors frequently arise when describing women, leading to the objectification of women and justification of violence against women (Chang, 2020: Prażmo, 2020). Sometimes the language adopted within incel forums becomes a misogynistic manifestation that normalizes violence against women, also through the help of digital technology, which has enabled hate speech to spread and advance more easily and rapidly (Tranchese & Sugiura, 2021).

Indeed, the internet and social media have facilitated the proliferation of misogyny and hatred against women and others within the manosphere in general, and specifically the incelosphere (Byerly, 2020; Farrell et al., 2019; Papadamou et al., 2021) and made it possible for incels to spread their ideology and create a group identity, encouraging violence and legitimizing misogynistic, racist, and violent ideals (Byerly, 2020; Farrell et al., 2019; Papadamou et al., 2021).

Other sources differentiated two different aggressive approaches within incel ideology: (1) misogyny and violence against women, especially verbal harassment and hate speech, and (2) extremist/terrorist attacks by members or affiliates of the incel community. However, these expressions of violence can be seen as interrelated and interdependent. Indeed, compared to other instances of mass violence, large scales attacks by incels or people associated with inceldom have disproportionally targeted women, or have had misogynistic motivation, and may also therefore be conceptualized as violence against women (Scaptura, 2019). Moreover, a connection between misogyny and violent extremism is well-recognized in the literature, and online misogyny perpetuated by members of the incel community may act as a gateway to actualized violence offline (O'Donnell & Shor, 2022; Regehr, 2020; Wilson, 2020). Online misogyny may also represent a threat to security, as misogynistic and gendered rhetoric may incite individuals towards aggressive behavior (Hunter & Jouenne, 2021).

The motivation behind incel societal violence converges in what, within the incel jargon, is called a process of "retribution" to impose on women who have sexually and romantically rejected incel community members. A number of episodes of mass-violence have been connected to the incel movement, through the participation of perpetrators in online communities where attitudes toward women and sexual frustration due to romantic rejection were the topic of discussion (Baele et al., 2019; Witt, 2020). These types of attack have been labelled as terrorist attacks because the violence can be linked with an organized extremist ideology (Witt, 2020).

As already pointed out, digital technology has made the incelosphere a very accessible space where members can shape each other's beliefs (Byerly, 2020; Hoffman et al., 2020). Caruso and colleagues (2021) highlighted the fundamental role of social media in the persuasion and recruitment phase to prepare for violent criminal activity; this process is typical of traditional terrorism. Certainly, incel forums are a relevant source of radicalization, as their offensive, misogynistic, and homophobic language is more likely to fuel individuals' rage rather than calm it down (Jaki et al., 2019; Hoffman et al., 2020; Regehr, 2020; Verza, 2019). Additionally, the continually changing situation of online platforms due to banning and closing incels' forums may play a role in implementing radicalization processes leading to the development of socially undesirable and potentially violent online behaviors (Horta Ribeiro et al., 2021; Young, 2019). The spread of the incel ideology online transforms individuals' loneliness into a wave of misogynistic anger, further amplified through the internet's echo-chamber effect (Regehr, 2020; Verza, 2019). Additionally, violent attacks in the name of the incel culture have an enormous impact on the incel community (Witt, 2020). Indeed, the authors of the most notorious manifestations of incel violence have become celebrities in the incelosphere and are depicted as saints and role models to follow (Baele et al., 2019; Witt, 2020).

In this regard, the incel phenomenon has been linked with forms of violent extremism and terrorism (Baele et al., 2019; Davies et al., 2021; Hoffman et al., 2020; O'Donnell & Shor, 2022; Wood et al., 2022; Zimmerman et al., 2018). Nevertheless, not all incels are terrorists: most incels end up in a fatalistic resignation (Cottee, 2021). Only a few incels reject such passive resignation and act violently against others or themselves to solve their problems (Cottee, 2021). Thus, terrorist attacks reflect an extreme example of incel violence, both online and offline (Cottee, 2021). Researchers are actively trying to identify methods to prevent incelrelated violent manifestations (Collins & Clark, 2021; Tomkinson et al., 2020). Furthermore, scholars have tried to adopt specific terrorism-detection tools to retrospectively identify incel lone-actor terrorists, like the Terrorist Radicalization Assessment Protocol (TRAP-18; Collins & Clark, 2021).

Lastly, other scholars address misogynistic behavior as a community problem and attempt to provide interpretative frameworks that may help challenge misogynistic discourse and blame in public discourses (Tomkinson et al., 2020). Likewise, grey literature—resources produced by



governments, non-profits, and other organizations that is often not peer reviewed—has explored possible causal and psychological factors for misogynistic views and societal attitudes, such as frustrated mating needs, social isolation and sexual entitlement within the non-incel population (Hansmeyer, 2021; Morssinkhof, 2021). Within these contributions, sexual entitlement was a significant predictor of misogynistic attitudes; however, frustrated "mating needs" did not contribute significantly (Hansmeyer, 2021; Morssinkhof, 2021).

Mental health and personality

The last category included in the systematic analysis encompasses findings that relate to the psychological profiles of people occupying incel spaces. When specifically referring to incel-related personality traits, a consensus has not yet emerged. However, a number of researchers have attempted to delineate a clearer picture of the prototypical incel personality. Thirteen articles included in the systematic review covered aspects related to incel personality, also including unpublished records, such as student dissertations with promising findings, which should be further explored in research (see Appendix J; Online Resource 9).

According to accounts by incels themselves, genetics is one of the main reasons they entered a forced celibacy condition. As previously mentioned, generally, incels attribute their lack of sexual experiences to their perceived unattractiveness (Menzie, 2020). Moreover, research suggests that romantic loneliness and social rejection, together with a negative view of life, represent core components in the genesis of the incel phenomenon (Jaki et al., 2019; Williams & Arntfield, 2020). Incels often lack social interactions, and their narratives outline preoccupying levels of social isolation and feelings of hopelessness and helplessness (Williams & Arntfield, 2020; Williams et al., 2021).

Furthermore, another recurring theme in the research contributions aiming to delineate a potential incel profile often discusses mental health-related issues (Hastings et al., 2020; Sparks et al., 2022; Williams & Arntfield, 2020; Williams et al., 2021). According to internal surveys conducted within incel websites and forums, mental health issues such as depression and anxiety are frequently reported online within the incel community, together with suicidal ideation (Hastings et al., 2020; Hoffman et al., 2020). Another condition frequently reported in the incel community pertains to the diagnosis of Autistic Spectrum Disorder (ASD; Hoffman et al., 2020; Williams et al., 2021). In their study on violent self-identified incels, Williams and colleagues found that a consistent part of their sample potentially showed signs of ASD (2021). A hypothesis to explain these results is that the online incel subculture may have a particular impact on individuals with ASD: these individuals may be at a higher risk of adopting an incel ideology (Williams et al., 2021). Finally, Williams et al. (2021) also noted specific cognitive patterns and personality traits that may be consistent with some DSM-5 defining criteria of personality disorders and other aspects typical of the schizophrenia spectrum disorders. More specifically, the incels' narratives suggested signs of pathological narcissistic personality, and schizophrenic-like aspects of grandiosity and delusional thinking (Williams et al., 2021).

Some attempts exist in the literature to develop a scale measuring those personality traits that may be more likely to refer to an incel-related personality. Scaptura and Boyle (2020) developed an "Incel" Trait Scale to measure incels' identity and how it relates to gender-based violent fantasies. To create their scale, the authors analyzed the characteristics and emotions more frequently associated with the incel movement in news articles. Some examples of incels-related traits included terms like "misogyny," "sexual frustration," and "lonely," whereas emotions referred to "anger," "hatred," and "resentment" (Scaptura & Boyle, 2020). According to the authors, incel traits focus mainly on two measure types: those including items referring to incels' feelings of rejection and loneliness (e.g., defeated, rejected, insecure, weak, unattractive); and the ones tackling the angrier tones and behavior of the incel-community (e.g., hateful, disgusted, paranoid, resentful, vengeful, enraged, and violent; Scaptura & Boyle, 2020).

Another research contribution proposes adopting the DSM-5 models of cultural formulation and personality to describe individuals with extreme overvalued beliefs as a motive for various types of violence, including incel violence (Rahman et al., 2021). A formulation of the individual's culture, subculture, and personality traits should be paired with a comprehensive analysis of their history and collateral data. According to the authors, this person-centered approach may provide a useful diagnostic tool in forensic settings to discuss whether or not acts of violence should be attributed to mental illness and, if so, how to prevent them (Rahman et al., 2021). Finally, Stijelja and Mishara (2023) attempted to draw a psychosocial profile of incels through a narrative review of studies reporting psychosocial variables linked with involuntary celibacy, late sexual onset, or adult virginity. They concluded that alongside antifeminist and against-women ideologies, incels are also characterized by negative body image, shyness, loss of self-confidence, poor social skills, and lack of positive peer relationships (Stijelja & Mishara, 2023).

Lastly, grey literature contributions have provided interesting attempts to understand whether a particular personality type could predict incel-related characteristics and incel community membership. Overall, those contributions



confirmed the importance of loneliness, romantic rejection, and social isolation as potential risk factors for inceldom (Kreuzberg, 2020; Passmann, 2020; Rouda, 2020). Incel members involved in the studies showed indicators of deficits in wellbeing, namely loneliness, depression, stress, and anxiety, which can further be related to episodes of violence, misogyny, and suicide among the incel community (Passmann, 2020).

Several studies examined the Big Five personality traits (i.e., openness, conscientiousness, extraversion, agreeableness, and neuroticism) in the context of incels. Results suggested that incel community-involved individuals reported high scores on the neuroticism dimension (Bieselt, 2020; Grunau, 2020). The latter may signify that an incel-related personality may be linked with higher levels of insecurity and self-doubt, which may decrease success with peer acceptance and dating situations. Also, neuroticism appeared to be linked with a higher likelihood of experiencing unhappiness and loneliness, which were predicted by anxiety and depression (Bieselt, 2020; Grunau, 2020). On the other hand, the lower scores on the extraversion, agreeableness, and conscientiousness dimensions reflected incels' usual difficulties in social and relational contexts, together with loneliness and a low body image perception (Bieselt, 2020; Grunau, 2020).

To conclude, although a clear identification of the potential causes and consequences of becoming a self-identified incel is challenging to achieve, mostly because it might be that causes and consequences interact and reinforce each other, the main literature findings regarding the incel phenomenon suggest that some factors may be reasonably linked with the development of an incel-related personality: namely, poor social skills and social isolation, romantic rejection and lack of sexual and romantic intimacy, negative body image, and physical appearance (Speckhard et al., 2021; Stijelja & Mishara, 2023). Additionally, as previously mentioned, there are also some psychological and mental health factors, like ASDs, lack of self-confidence, depression, anxiety, feelings of loneliness and suicide, that can entrench these feelings even further (Hastings et al., 2020; Speckhard et al., 2021; Stijelja & Mishara, 2023; Williams & Arntfield, 2020; Williams et al., 2021).

Miscellaneous

The last section of the systematic analysis includes records tackling varied topics and methodologies (n=11; see Appendix K; Online Resource 10) as a sign of the diversification of approaches adopted to describe the incel phenomenon. Beran (2021) critically analyzed the incel phenomenon from a historical and cultural point of view. He focused on the role of culture and the historical transformation of misogyny, monogamy, and marriage, analyzing the different

meanings they acquire within incels' narrative underlying assumptions. Sharkey (2021) adopted a non-condemnatory approach to the incel phenomenon and challenged academia to see incels as teenage boys—often hackers and gamerswho have experienced social isolation and an "arrested development". Other sources approached the incel phenomenon from a psychoanalytic approach, analyzing incels' ideology through the psychoanalytic concepts of castration and anal sexuality (Krüger, 2021); the idea of psychological freedom and its relationship with aggressive behavior (Burke, 2021); and the sublimation of incels' desire of power and control (DeCook, 2021). Finally, Dynel (2020) explored the humoristic practices and approaches adopted in specific incels subreddits and posts. Through a content analysis, the authors questioned the reliability of online comments and posts, posing the issue of possible trolling episodes where impostors act as incels to foment and trigger emotional reactions of the community members. Eventually, some remaining records have been put in this "miscellaneous" category as they cover general aspects of the incel phenomenon without focusing on any specific feature (Donnelly et al., 2001; Moonshot, 2020; Nagle, 2017; Ostermann, 2020; Rodger, 2014).

Discussion

The incel phenomenon has emerged as an internet subculture with tangible impacts on the wellbeing of both community members and those who experience abuse or violence through the direct or indirect influence of the incelosphere. In reviewing the existing research on the incel phenomenon, our main goal was to gather, synthesize, and organize the relevant literature. The records examined through the PRISMA model (Moher et al., 2009) have been subdivided into four macro-categorizations: attitudes and beliefs relating to the incel ideology, role of technology in facilitating the development of the online incel community, violence, and personality-related division. Discourse and content analyses contributed to creating a thorough understanding of the dynamics, attitudes, and views through which the incel community is created and expressed (see Appendix G; Online Resources). A new line of research on the incel phenomenon directs more attention towards the technological aspects involved in the development of online incel communities and provides new insights regarding the detection of this phenomenon by utilizing artificial intelligence tools (see Appendix H; Online Resources). Records focusing mainly on the violent component of the incel phenomenon were concerned with facets of the violent implications of the incel ideology: personal, interpersonal, and societal (see Appendix I; Online Resources). Another grouping of



research contributions attempted to delineate a potential incel personality profile (see Appendix J; Online Resource 10). Mental health issues and conditions of loneliness and social isolation were consistently reported.

Our review of the literature relating to incels and incel spaces raise several issues requiring further consideration. First, incels' heterogeneity should be recognized in how individuals enter the online community and how they relate to it. Indeed, we may see that incels adopt different techniques to respond and react to their incel identity, which is evident when talking about violence elicited by incel ideology. It is crucial to keep in mind the destructive power of the incel community forums online; such online spaces are prone to lead toward exclusion rather than cohesion within the group. Young adults may enter the incel community online to find a way to pseudo-socialize with other individuals who share their same difficulties and concerns. However, once they enter those communities, a possibility exists that they get sucked into a radicalization pathway towards aggressive and violent behavior (Regehr, 2020). Members of the incel community and the broader manosphere may rely on those virtual spaces out of necessity rather than choice. This highlights the importance of creating alternative spaces that can offer understanding and a sense of belonging free of stigmatization. These spaces can help young men find a community that will benefit their mental and social wellbeing (Sparks & Papandreou, 2023).

Moreover, it is vital to point out the clinical implications of the incel phenomenon. Research findings suggest that professionals and policy makers should take account of incels' risk of psychological distress, such as depression and anxiety, and of the impact of other factors relating to mental well-being, such as ASD, which may characterize members of incel spaces (Sparks et al., 2022; Speckhard et al., 2021). Incels themselves seem to mistrust official health systems. Indeed, within the incel forums, there is a tendency to advise against seeking psychosocial support (Speckhard et al., 2021). Overcoming these cultures of suspicion within the incelosphere represents a major challenge for professionals responsible for supporting vulnerable individuals and preventing gendered violence. It is true that a violent fringe of the incel community exists and has been recognized as a threat. However, it is essential to acknowledge that a large part of the incel community members do not engage in violence, and, instead, may pose a greater risk of harming themselves.

In line with this, although diverse and, sometimes, contradictory opinions in the literature exist regarding the link between incels and terrorism, it should be made clear that only a few exponents of the incel phenomenon have acted on their ideology, committing socially violent and terroristic acts (Cottee, 2021). Therefore, it is possible that incel

ideology holds an attraction for people already at risk of acts of large-scale violence or terrorism, and provides them with the form and narrative of that violence, rather than operating as a single motivating factor. Additional research is needed to better understand the trajectories that lead people to incelinspired mass violence.

Researchers should be aware of the heterogeneity of individuals comprising the incel community. In particular, incels might be more willing to seek and engage with forms of professional or clinical support if tailored to their needs and feelings (Sparks et al., 2022). In this regard, it is crucial to stress that knowledge of the incel phenomenon should become more person-centered and informed by empirical and experimental data. Professionals and policy makers may benefit from finding ways of working non-judgmentally with incels and from avoiding stigmatizing the experiences and needs of that community. Indeed, sentiments of apathy, shame, and resignation appear to be more prevalent within the incel community than sentiments relating to an active violent rebellion (Cottee, 2021). Stigmatizing a community already facing high levels of social isolation may be counterproductive and unhelpful in preventing the violence perpetrated by a subset of radicalized incels (Cottee, 2021; Speckhard et al., 2021).

Following from the above, we argue that it is essential for researchers to continue to develop knowledge of root factors determining individual attraction to incel communities, particularly for those individuals at risk of radicalization. A more holistic approach should be adopted in reaction to the incel phenomenon, namely an ecological one, focusing on addressing all the possible contributing factors (social, economic, environmental, and health-related; Hunter & Jouenne, 2021). The following are some areas where professionals and policy makers may find opportunities to intervene to reduce negative consequences associated with the incel phenomenon:

- Detect early signs of violence; a first step may involve monitoring for early signs of violence, mental health issues, and isolation and rejection in the incels' narratives. These signs should be considered alongside knowledge gained through theoretical and empirical research, such as knowledge on aggravating factors. For example, a history of victimization or domestic and family violence may provide an additional consideration, given evidence that links perpetration of terrorist attacks with experiencing violence, particularly domestic violence (Zimmerman et al., 2018);
- Investigate and elaborate on the themes of physical appearance and attractiveness; so-called 'lookism' theories which blame celibacy on physical appearance are an underpinning component of incel ideology (O'Malley et



al., 2020). Clinical interventions should reflect on the incels' fixation on physical appearance and seek to cultivate healthier and more balanced perceptions of body images. The beauty standards and expectation that permeate social media, if internalized, may fuel some of these lookism beliefs, especially given the influence of online spaces and technology on the incel phenomenon. These standards may need to be challenged in individual work or as part of wider policy work. Promoting alternative narratives to the Black Pill ideology may help reduce the risk of self-harm and harm to others (Speckhard et al., 2021);

- Investigate and elaborate on the hegemonic masculinity ideals and macho culture; the dissemination among young people of ideals of harmful masculinity and adversarial beliefs towards women and feminism may place them at a higher risk of committing and being victims of violence. Striking examples of this come from the school shootings literature, where risk factors include masculinity and how young men feel the urge to prove and reinforce it through violence (Kalish & Kimmel, 2010; Vito et al., 2018). The popularity of incel spaces and the wider manosphere may point to a void in guidance that society offers young men—in particular when navigating a sexual, dating, and social world that has been changed by the influence of increased gender equality as well as by the influence of social media, dating apps etc. Policy interventions should consider how to address this void rather than risk it being filled with harmful actors and ideologies. Furthermore, the healthcare system should adjust and offer support systems that are inclusive and supportive of men without reinforcing traditional gender roles. Instead, it should introduce models and paradigms that promote new and broader definitions of masculinity (Sparks & Papandreou, 2023).
- Sexual education programs would benefit from being informed by knowledge developed on incels and other ideologies that resonate with young people. Indeed, incel discourse appears to completely lack a "positive sexuality" dimension. For this reason, educating and promoting positive sexuality principles may help mitigate and, maybe someday, prevent the risk factors related to violence fueled by sex negativity (Williams & Arntfield, 2020).

Limitations

In our systematic review, we adhered strictly to PRISMA guidelines. However, it is worth highlighting some limitations of the review. By its nature, the incel community represents a continuously evolving entity, making it complicated

to derive absolute outcomes from studies about it. Moreover, the frequent banning and shutdowns of incel forums and online spaces, poses a challenge to the continuity of research investigating these spaces (Stijelja & Mishara, 2023). With the constant evolution in meeting locations and modalities, the content of incels' discourse and ideology is prone to shift, intensify, and develop nuances (Horta Ribeiro et al., 2021). Also, the research on risk and predisposing factors determining the participation in the incel community is in its infancy and therefore there is little consensus on these potentially causal processes in the literature.

Finally, despite choosing broad inclusion criteria, the specific choice of terms and design decisions adopted for the database search may have resulted in relevant research being missed. The terms adopted as Boolean indicators may have been too vague or, on the contrary, too specific, and this may have caused overlaps and over selection. Thus, cumulative validity and the records selection method may have introduced a potential bias. Nevertheless, the initial number of records identified through the database searching was substantial (n=593), even after removing duplicates (n=231), appeared to indicate that a wide range of articles had been included in the final systematic analysis. Thus, the current results are likely to represent a representative and reliable source of information.

Conclusion

To conclude, we summarize the practical implications of this systematic scoping review. The scoping review conducted for this systematic analysis has clarified how the incel community represents a heterogeneous reality, often with psychological and clinical implications for its members. The incel phenomenon is characterized by a specific culture and ideology that includes misogynistic and potentially violent aspects, which has seen substantial study by literature focused on content and language.

The thorough study of the literature, however, has shown how it is vital to acknowledge and tackle the clinical implications of the phenomenon itself. Professionals and policy makers working with this population should familiarize themselves as much as possible with aspects of the incel ideology that appear to pose a risk to community members and to others. First, tackling professional resistance towards—or lack of familiarity with—the incel phenomenon is fundamental in recognizing it as a reality made of many different yet coexisting factors. Together with the intervention targets described earlier, a community-based approach towards identifying and socially integrating individuals who are particularly lonely and socially excluded could represent a good starting point.



Finally, as part of our scoping review, we have pinpointed areas of the incel phenomenon that lack research and attention. We therefore highlight practical recommendations for future studies. According to the categorization of the literature on the incel phenomenon, future research should continue to leverage new technological advances to study and detect the incel phenomenon more effectively. More specifically, AI tools have clear potential to more accurately detect radicalized views related to incel ideology in online spaces. Moreover, we recommend further research to better understand individual characteristics and personality traits that may signal a profile of individuals embracing and supporting incel ideology. Going beyond simply understanding the pull factors that draw people into incel spaces, further research is needed to understand how some of these individuals become radicalized to the point of perpetrating violence. By understanding and detecting these deleterious trajectories, specific intervention types could be designed to prevent predisposed individuals from embracing a violent ideology and, thus, reduce online hate and misogyny (Grunau, 2020).

More direct experimental and empirical studies should be conducted to recognize that identifying risk and protective factors represents a fundamental step toward violence prevention. One approach would be to implement direct surveys and interviews with self-identified incels or with those individuals who exited the incelosphere for good. Moreover, conducting life history interviews and surveys could represent a significant step forward in recognizing the early indicators that may lead to the incel radicalization process (Cottee, 2021; Wood et al., 2022).

While most academic discussions of the incel phenomenon focus on potentially harmful features of the ideology, it is worth questioning who is at most risk of this harm. To answer this question, further exploration is needed of how the online space of the incelosphere affects its members' mental health. Thus, we should ask whether the incelosphere should be viewed solely as a harmful and violence-eliciting space or whether it is possible for these spaces to function as a shelter for vulnerable people who feel rejected by women and society. It is plausible that the online incel community may both help and hinder individuals participating in it (Cottee, 2021), though we would question whether the intensely negative discourse in many of these spaces limit any potential benefit. Due to the clear relationship between involvement with incel spaces, poor mental health, and selfharm, future research should seek new ways to interrupt incels' mistrust of mental health systems and support.

Additionally, future research should further explore whether it is possible to harness the pull and function of incel spaces to reach vulnerable young people and to consider whether members of incel spaces demonstrate protective factors. For instance, more insights should be gathered on those individuals who manage to navigate and even quit the incel community, set aside a radicalized, antifeminist, and misogynistic ideology, and who have managed to develop relationships online or offline. This knowledge could provide insight informing efforts to tackle the phenomenon in a proactive, preventive, and clinical manner.

We expect the evidence base around the incel phenomenon to continue expanding. A key step for knowledge development in this space will be when sufficient repetition and replication of studies has occurred for meta-analyses to be conducted. The massive amounts of forum, posts, etc. available online also mean that researchers have an ever-increasing corpus of rich data on incel discourse to continue refining and testing theories. As a result, we see significant promise in the field's ability to identify interventions that may effectively help detect and reduce radicalization and the risk of gendered violence as well as interventions to improve the wellbeing of people caught up in the incelosphere.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s12144-024-06236-6.

Funding Open access funding provided by Università degli Studi di Bari Aldo Moro within the CRUI-CARE Agreement.

Data availability Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

Declarations No human participants nor animals were involved in the study, therefore informed consent was not necessary. No funds, grants, or other support were received for conducting this study. The authors have no competing interests to declare that are relevant to the content of this article.

The article is based primarily on the first author's MSc dissertation. Accordingly, they performed the literature search, data analysis, and first draft. The second author suggested the material analysis methodology, namely systematic scoping review, and has helped with its realization. The second and fourth authors constantly reviewed and edited the manuscript as it proceeded in each step of the drafting. The third author provided editorial and content feedback on the manuscript. All authors read and approved the final manuscript.

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