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**Psychosocial Characteristics of Involuntary Celibates (*Incels*):
A Review of Empirical Research and Assessment of the Potential Implications of
Research on Adult Virginity and Late Sexual Onset**

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ABSTRACT

Incels are defined as involuntary celibates who are part of an online community characterized by an anti-women ideology. We review research on the psychosocial characteristics of people identifying as Incels and compare their characteristics with general research on adult virginity and late sexual onset. Studies were identified through database search (Scopus, PubMed, PsycInfo and Google Scholar). Findings from 59 empirical studies were included. Incels are demographically, ethnically, and religiously diverse. Analyses of Incel forum discussions and survey responses report on psychological issues relating to negative body image, shyness, anxiety, social skill deficits, autism, bullying, sexual and romantic inexperience, loneliness, depression, and suicide. Research on adult virginity and late sexual onset report similar psychosocial characteristics and indicate feelings of being sexually “off time” relative to peers, but without a high prevalence of anti-women ideology. Future studies should focus on identifying why some sexually inexperienced adults participate in anti-women forums and identify as Incels, and if their mental health and psychosocial issues appeared before or after self-identifying as an Incel.

Abstract: 168 words; **Manuscript:** 6,037 words

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INTRODUCTION

In recent years, there has been much public interest in the involuntary celibates who identify as “Incels.” Media reports have focused on the misogynistic nature of their online discussions and the acts of violence perpetrated by self-identified members of this community. Recent examples include the 2018 Toronto van attack targeting women by a man who identified as an Incel, the 2015 Umpqua Community College shooting, and the 2014 Isla Vista killings. Despite the media attention there are few scientific studies of the psychosocial characteristics of people identifying as Incels and discussions of why some celibate persons identify as Incels and participate in online Incel forums.

The first Incel online community is said to have emerged in 1997 as the result of a project by a young Canadian woman named Alana (Beauchamp, 2019; Hoffman et al., 2020). Her website, "*Alana's Involuntary Celibacy Project*," was established to provide an opportunity for involuntary celibates to openly discuss their plight associated with their sexual inactivity. Many other similar forums populated the internet in the early 2000s (e.g. *loveshy.net*, *IncelSupport*). However, it is on Alana's website that the contraction "*Invcel*" (eventually shortened to "*Incel*") was initially proposed. In a recent interview with the BBC, Alana described her site as a "friendly place", where both men and women could gather to talk about feeling lonely and wonder aloud why they could not meet anyone (Taylor, 2018). However, the community eventually morphed into something that bears little resemblance to her initial website.

The meaning of the word "Incel" changed from the original definition that included all men and women struggling with a lack of interpersonal sexual activity. Although the *Incels Wiki*, an online encyclopedia created by Incels, states that "*the only unifying trait of incels is being involuntarily deprived of sex*" (Incels Wiki, 2021), others have characterized Incels as violent male supremacists (Tolentino, 2018), convinced that they are owed sex and enraged by the women who deprive them (Srinivasan, 2018). They have also been described as a "one of the internet's most dangerous subcultures" (Beauchamp, 2019). While "involuntary celibacy" can describe the state of anyone who feels as though their sexlessness is not voluntary, the concept of "Incel" has come to refer specifically to men who are both struggling with a lack of sexual activity and are part of an online community espousing a misogynistic ideology encapsulated in what is called the "*blackpill*" (which will be further detailed below). This misogynistic ideology has common themes and people who participate in online Incel forums have developed common terminology to express their views.

Online forums such as 4chan and Reddit may have allowed "toxic technocultures" (i.e. online cultures that promote retrograde ideas of gender, sexuality, sexual identity or race; Massanari, 2016) to thrive due to their lack of accountability and

the anonymity these environments provide (Bernstein et al., 2011; Massanari, 2016; Pfaffenberger, 1996). Furthermore, the structure of the social media platform Reddit contributed to increase the visibility of outrageous or shocking online comments (known as “*shitposting*”) through their upvote system. The upvote system allows users to increase the popularity of certain comments (by “upvoting” them), hence raising their prominence (Hoffman et al., 2020). When Incel-related communities emerged on Reddit the content of conversations was strongly influenced by the type of edgy and extremist sentiments typically encouraged on sites such as Reddit and 4chan (Hoffman et al., 2020). Consequently, shocking comments proliferated due to the reactions and responses they garnered (Hoffman et al., 2020). One of the first Incel-related forum on Reddit (i.e. subreddit), *r/Incels* (founded in 2013; Incels Wiki, 2021), peaked at 40,000 subscribers in 2017, before being taken down that year due to repeated violations of Reddit’s policy prohibiting incitement to violence. Subsequently, many other Incel forums were created on Reddit, such as *r/Braincels*, *r/IncelsWithoutHate* and *r/Shortcels*. However, most were also eventually banned or quarantined due to similar policy violations. This prompted some members to create communities outside of *Reddit*, such as the independent website *Incels.co*.

It has been argued that older masculinist online communities (i.e. the “Manosphere”), such as *Men’s Rights Activists* (MRA) and *Pick-Up Artists* (PUA), influenced the development of Incel forums by injecting them with an anti-feminist ethos (Ribeiro et al., 2020). An analysis of the movement of Reddit users describes how newer Manosphere communities— such as *Men Going their Own Way* (*r/MGTOW*) and *r/Incels* – experienced a significant migratory influx from the older communities (e.g. *r/MRA* and *r/PUA*) (Ribeiro et al., 2020). The vernacular that emerged from these older communities can be readily seen today in comments posted in Incel forums. For instance, a core tenet of “*Inceldom*,” the vernacular used to describe the state of being an Incel, is the concept of *blackpill*. Initially, in MRA and PUA communities, “*taking the red pill*” (in reference to the movie *The Matrix*) represented the awakening to the truth of male-female relations. The *red pill* purports that women are vain and vacuous and “naturally” attracted to certain types of men (i.e. rich and/or attractive, an ideal of masculinity exemplified by the internet meme called “Chad”). Once they accept this tenet, men seeking to establish sexual relationship with women can find a slew of misogynistic self-help dating advice from the *Pick-Up Artist* community (Beauchamp, 2019; Ribeiro et al., 2020). The *blackpill*, however, while starting from the same proposition that females are attracted to certain types of men, rejects the possibility of establishing a romantic relationship with women for people who do not fit those characteristics (i.e., stereotypes). This is because, it is argued, a man’s sexual success is entirely dependent on unalterable biological traits such as height, facial symmetry and chiseled jawline (Beauchamp, 2019). No amount of *gymmaxing* (i.e. improving one’s physique by working out) or *looksmxing* (i.e. improving one’s appearance) can help

overcoming these “natural” limitations. Ultimately, believers in the fatalistic concept of *blackpill* effectively reject any hope of escaping their predicament.

The misogyny characterizing the Incel culture and its potential for violence have received extensive attention from academia (e.g. Baele, Brace, & Coan, 2019; Hoffman, Ware, & Shapiro, 2020). However, empirical research analyzing the psychological profile of Incels is sparse. This narrative review provides a synthesis of empirical research on psychosocial variables associated with this identity, and additionally considers research on adult virginity and late sexual onset. This literature is particularly relevant, considering that Incels describe themselves as fundamentally “*deprived of sex*” (Incels Wiki, 2021), and since a sizeable proportion of them report being a virgin or having missed an important developmental milestone. Although a minority of adult virgins and late bloomers identify as Incels, these populations share a similar defining trait in that they are lacking sexual experience or had a non-normative (“delayed”) debut of sexual activity with others. We therefore examine research findings in order identify factors that might help us better understand how incels differ from other sexually inexperienced adults.

METHOD

We review quantitative and qualitative studies identified through database searches in Scopus, PubMed, PsycInfo and Google Scholar. Syntaxes using natural and controlled language were used to identify relevant references (syntaxes are included in the Supplementary Material) concerning both Incels and the more general topics of adult virginity and late sexual onset. We used variations and Boolean connections of terms relating to Incels (e.g. *inceldom*, *blackpill*, involuntary celibates) and sex, adult virginity and late sexual onset (e.g. sexual, virginity, romantic). The search was conducted in August 2022, with no date restrictions. Following removal of duplicates and the inclusion of studies identified through forward-referencing (n=20), 6,774 papers were identified and screened based on the reading of their title and abstract. We retained 302 papers that suggested that they would report on findings on incels, adult virginity or late sexual onset. The full text of the 302 papers were read. Inclusion criteria were: published in a peer reviewed journal, a Masters Thesis or Doctoral dissertation (since they are reviewed by a committee of senior faculty members), in English and French, and reporting empirical data on psychosocial variables associated with involuntary celibacy, late sexual onset or adult virginity. Exclusion criteria were: studies only presenting a commentary or an opinion on these issues, and not having been published in a peer reviewed journal. All papers that reported results of empirical research using qualitative and quantitative research methods were retained (including survey data analysis, content or thematic analysis, etc.). An unpublished survey conducted on Incels.co, and made publicly available by its moderator was also included

in this review as it followed survey procedures comparable to obligations of peer reviewed journals Overall, 59 studies were retained to complete the qualitative synthesis. The PRISMA flow chart of study selection is presented in Figure 1. This paper is a narrative review, which is considered to be best suited to obtaining a broad perspective on an emerging topic (Green et al., 2006).

RESULTS

Studies on Adult Virginity and Late Sexual Onset

It is estimated that between 30% to 40% of U.S. adolescents will not have engaged in sexual intercourse by age 18 (Moshner et al., 2005; Zimmer-Gembeck & Helfand, 2008). However, these numbers drop by adulthood: only 3% of men and 2% of women between the ages 25-44 report an absence of vaginal intercourse (Moshner et al., 2005). Sexually inexperienced adults are considered to be both an uncommon and understudied population (Gesselman et al., 2017). Large scale studies in the US have identified several predictors of virginity in adulthood. Adult virgins have greater odds of being overweight (Halpern et al., 2005; Halpern et al., 2006; Haydon et al., 2014), or at least perceive themselves as being overweight (Donnelly et al., 2001). For males, living at home with one's parents, being non-Hispanic Asian, experiencing later than average pubertal development, being rated as physically unattractive by others, and being unemployed were other factors that significantly decreased the odds of initiating sexual activity (Bozick, 2021; Haydon et al., 2014). Among females, being overweight, having lower cognitive performance and reporting frequent religious attendance also decreased the odds of having sexual experience. For both genders, a lack of previous romantic relationships is a common correlate of sexual inexperience in adulthood (Adamczyk, 2009; Donnelly et al., 2001; Meier, 2003; Meschke et al., 2000).

Since sexual relationship formation is normative in adolescence and early adulthood, it has been hypothesized that sexually inexperienced adults would have negative psychosocial consequences associated with being "off time" relative to their peers in the same age cohort (Gesselman et al., 2017). Recent studies have lent weight to this hypothesis. In line with life course theory, which stresses the importance of transitioning in sync with one's peers (Boislard et al., 2016), being "off time" relative to others, whether too early or too late, has been shown to be associated with negative social and psychological consequences (Gesselman et al., 2017; Haase et al., 2012). For example, in a national U.S. study on the long-term health correlates of the timing of first sexual intercourse, both early and late initiators were noted to be more likely to experience significant problems with sexual functioning (e.g. sexual arousal, achieving and maintaining an erection, reaching orgasm), compared to those who initiated sexual activity at a normative age (Sandfort et al., 2008). In the Haase et al. (2012) study, both early and late timing of first sexual experiences were associated with lower psychosocial adjustment and subjective well-being in young adulthood. Late timing of sexual

experiences was associated with poorer social relations in young adulthood, indicated by a lower likelihood to have a romantic partner and a true friend.

Studies reported that boys who delay their transition into sexual activity were more likely to be anxious, have a negative body image and poorer relationships with peers (Bingham & Crockett, 1996; Capaldi et al., 1996; Jessor et al., 1983; Zimmer-Gembeck & Helfand, 2008). Likewise, it was documented that socially withdrawn children had a higher risk of remaining sexually inactive longer in adulthood (Lucas et al., 2019). Since socially withdrawn youths have fewer opportunities to acquire social skills, they are more likely to develop a poorer perception of their social competence and, therefore, tend to have a lower level of involvement in other-gender friendships. This lower involvement in other-gender friendships consequently decreases their chances of being involved in a romantic relationship and eventually transition into sexual activity. In a study of college students, those who had not experienced their first sexual intercourse were found to have lower self-esteem, poorer body image and shorter dating relationships than non-virgins (DiMauro, 2008). When compared to satisfied virgins, reluctant college virgins who did not make a proactive decision to remain virginal reported fewer positive thoughts and more concern about themselves and their lack of sexual experience (Sprecher & Regan, 1996).

Since dating is the most common route to consensual sex, a possible link may exist between low-frequency daters and reluctant virginity (DiMauro, 2008). Studies have reported that infrequent daters in college exhibit comparable characteristics to reluctant college virgins, namely shyness, negative body image, and poor social skills (Leck, 2006; Prisbell, 1986). Similarly, lower-frequency daters tend to perceive themselves as more socially anxious and avoidant, and are rated by their peers as being less skilled and comfortable (Phibbs, 1979)

Gilmartin's (1987) conducted research on "love shyness," – a term which he coined and defined as the *"difficulty to be assertive in informal situations involving potential romantic or sexual partners."* He found that 42% of love-shy male virgins agreed with the statement *"Through most of my life I never had any friends,"* 58.3% agreed with *"When I was a child I was often bullied by other children of my own age"* and 53.3% said yes to the statement *"prior to age 13, did you ever experience feelings of loneliness for the close, emotionally meaningful companionship of an opposite-sexed agemate?"* Compared to their non-shy counterparts, shy male virgins scored significantly higher on the *"neuroticism"* dimension of the *Eysenck's Personality Inventory (EPI)*, and significantly lower on the *"extroversion"* dimension (Gilmartin, 1987).

Finally, sexually inexperienced adults are reportedly more likely to be stigmatized (Gesselman et al., 2017). In one study, inexperienced adults were perceived as less attractive relationship partners by both sexually experienced and sexually inexperienced

adults (Gesselman et al., 2017). Another study of later-in-life virgins reported their feelings of dread when thinking of disclosing their virginity to potential partners, fearing that would lead to them losing a relationship opportunity (Fuller et al., 2019). As a result, numerous adult virgins consider that their virginity will likely endure (Fuller, Boislard, & Fernet, 2019). Males, in particular, are subject to greater social pressure to be more sexually active, both during adolescence and in adulthood (Koenig, 2018; Lucas et al., 2019). Consequently, adult males experience a greater sense of embarrassment associated with their virginity (Carpenter, 2005, 2010), and tend to view it more negatively than females (Sprecher & Treger, 2015). Authors have suggested that for some men this may be explained by a greater adherence to masculine sexual norms, which present sexual prowess as a way of proving one's manhood (Humphreys, 2013; Zajdel, 2021). Sexual scripts in the US, and among several other cultures (Zajdel, 2021) have traditionally presented heterosexual sex as way of upholding expectations of what it means to be a cisgender man (Holland et al., 2000; Humphreys, 2013), with virginity loss seen as a way of proving emerging masculinity (Cohan, 2009). Consequently, not conforming to these norms may prove to be a source of great embarrassment for some men. A recent study found that men who endorsed stigma beliefs were more likely to report negative feelings after losing their virginity later in life, and being more anxious about their partner's expectations during sexual activity (Komlenac et al., 2022).

Quantitative Studies Providing Psychosocial Data on Incels

Donnelly et al. (2001) conducted the earliest identified study that used the label "involuntary celibacy" in the context of academic research. In it, the authors defined an involuntary celibate as someone "who desires to have sex, but has been unable to find a willing partner for at least 6 months prior to being surveyed". The authors emphasized, however, that being an involuntary celibate is first and foremost a self-given label – what is important is whether people define themselves as involuntary celibates. The study surveyed 82 participants active on an online discussion forum for involuntary celibates. Of note, members of the (unnamed) forum they analyzed in the early 2000's did not adhere to the anti-women *blackpill* ideology characterizing Incel forums today. In line with Gilmartin's findings, virgins in Donnelly's study were more likely to report shyness. They additionally reported to have rarely or never dated and felt generally less confident in social situations. Lack of social skills was cited by many participants as a major hindrance, increasing their odds of missing opportunities to build rapport with a potential sexual partner. The participants' body image was another frequently cited barrier to establishing a sexual relationship. Many reported seeing their weight or appearance as an obstacle to attracting potential partners (Donnelly et al., 2001). Among the reported consequences of their condition, participants expressed despair, resignation, feelings of depression and a loss of self-esteem. Adopting a life course

perspective, Donnelly et al. (2001) used the concept of feeling “off time” with regard to sexuality to characterize those who do not willingly chose to be celibate, but remain so. Several participants felt as though they have missed important transitions in their lifetime, with passing years exacerbating their feeling of being different from their peers. The aforementioned studies all concern people who identify as involuntary celibates, before the development of online forums in which involuntary celibates could identify as Incels and participate in discussions with misogynistic content and vehement anti-women themes.

More recently, after the development of online Incel forums, a semi-annual online survey carried by the *Incels.co* moderator provided a partial description of the sociodemographic and psychological characteristics of its members (SergeantIncel, 2019). According to the October 2019 survey, users of the forum were exclusively male (100%), almost all believed in the *blackpill* (95%), and a strong majority were under age 30 (85.5%). A plurality of its members came from Europe (45%) and another sizeable percentage from North America (38%). While white males (56%) represented the most important subgroup, the user base was racially diverse. A recent study using text analysis similarly reported that *Incels.co* was constituted of users from diverse ethnic and racial backgrounds, without any clear connection to any white supremacist agenda (Jaki et al., 2019). Statistics regarding their sexual and romantic experiences highlighted that a vast majority of Incels (77.5%) never experienced a sexual encounter, and 85% never had a sexual relationship (SergeantIncel, 2019). In line with life course theory (Elder, 1998), 95% reported believing they had missed an important developmental milestone that other people have naturally been able to experience. Finally, an important theme is the high prevalence of mental health issues. A majority of users (59%) reported suffering from depression, 74% from stress and anxiety, and 25% from autism. Furthermore, 67.5% claimed to have considered suicide “in a serious manner in the future if things don’t change”.

A recent study reported results from an online survey posted in an (unnamed) Incel forum (Speckhard & Ellenberg, 2022; Speckhard et al., 2021). The authors analyzed responses from 272 self-identified Incels and reported results congruent with the 2019 survey on *Incels.co*. That is, participants were exclusively males (100%), heterosexual (93.8%), and predominantly believed in the *blackpill* (94.9%). Survey respondents were ethnically, religiously and geographically diverse. Most identified as White/Caucasian (53.3%), and resided in Western Europe (32.4%) or North America (30.9%). The majority of participants were either atheist (35.7%) or agnostic (25.4%). The authors note that survey respondents did not differ demographically from the broader population. In terms of social and psychological issues, 80.9% of respondents described themselves as being shy during middle school and high school, and several reported experiencing bullying and ostracism during this period. Survey responses indicated a high incidence of psychological issues: 64.3% reporting depressive symptoms, 24.6% symptoms of autism,

27.9% symptoms of posttraumatic stress, 59.6% anxiety symptoms, and 47.8% suicidal ideation. Despite the high prevalence of mental health issues, only 51.5% said that they ever tried therapy.

Speckhard et al. (2021) found that users had several reasons for participating on the forum. The most frequent reasons reported were: 76.5% said it made them feel as though they “have freedom of speech”, 74.6% that the forum made them “feel understood” and 71.7% said they participated to “learn about the *blackpill*”. Other users stated that it gave them “a sense of belonging” (69.9%) and made them “feel less lonely” (58.1%), but 54.4% also reported that the forum made them “feel hopeless”.

Another study collected data from 274 self-identified adult Incels who responded to a survey posted to the Incels.co forum (Moskalenko et al., 2022). The mean age of participants was 24.84. Most participants were White/Caucasian (53.6%); 20.3% were Asian; 8.8% were Black; 7.3% were Hispanic; 6.9% were Middle Eastern, and 13.1% were Mixed/Others. Overall, 44% of surveyed Incels reported having received a formal diagnosis of mental illness. Participants reported having been diagnosed with depression (37%), anxiety (37%), and autism-spectrum disorder (18%). Most participants also indicated having been bullied in their lifetime (86%) or persecuted for being an Incel (37%). Almost half (49%) of participants reported to have never tried psychotherapy. Among those who consulted, only 6% described it as helpful. The authors also reported on a factor analysis which sought to uncover the latent structure of the survey items. They identified two separate factors: the first contained variables concerning Incel ideology (e.g., the blackpill is true, the blackpill is objective, etc.), while the second factor contained variables concerning radical attitudes and intentions (e.g., entertaining violent thoughts about others, admiration for notorious Incel killers, etc.). These two factors were not strongly correlated. Therefore, the authors concluded that Incel ideology does not predict radical attitude or radical intentions. However, they noted that having been bullied and having been diagnosed with autism-spectrum disorder correlated significantly with Radicalism, without correlating with Ideology. In contrast, having been persecuted as an Incel and having been diagnosed with anxiety were significant predictors of Ideology but not Radicalism.

Although the desire to identify as an Incel and to subscribe to these forums may be seen as an indication of willingness to overcome social isolation by joining a community of like-minded individuals – as suggested by the above surveys and previous studies (eg. Burgess et al., 2001; Speckhard et al., 2021), it has also been documented that several forums spiraled into platforms extolling anti-feminist sentiments while simultaneously promoting a toxic (harmful) ideal of masculinity (Ging, 2017). Nevertheless, according to a textual analysis of conversations collected on *Incels.co*, Incels are a more heterogeneous group than what is usually depicted by the media (Jaki et al., 2019). While about half of the sample collected by Jaki et al. (2019) posted hateful messages at

one time or another, the study indicated that only a minority of users (10 %) were responsible for most of the hateful content directed at women. Baele et al. (2019) similarly documented the presence of an extremely active subgroup of users on *incels.co*, whose influence on discussions warrant further investigation.

Qualitative Studies Providing Psychosocial Data on Incels

This section focuses on studies that conducted qualitative analyses of Incels forums and reported on psychosocial issues in their results. Content analyzed on *r/Braincels* revealed the presence of several themes previously highlighted by Gilmartin and Donnelly, such as stories of bullying and rejection (Maxwell et al., 2020). Appearances, lack of female interest, level of attractiveness and social ineptitudes were other recurring themes (Glance et al., 2021). Preoccupations about appearances were also observed by other authors (Glance et al., 2021; Jaki et al., 2019; Maxwell et al., 2020; O'Malley et al., 2022; Rubertsson, 2019; Williams, 2020), who found that a large proportion of discussions taking place in Incel forums were related to looks (height, musculature, bone structure, etc.). Body image issues are presented as a major obstacle to the formation of sexual relationships and the development of social contacts. Drawing on Goffman's work on stigma, Glance's study (2021) suggested that Incels' stigmatized identity developed as a response to the feeling of failure to attain traditionally masculine attractiveness. Similar conclusions were reached by Daly and Reed (2022). They interviewed 10 self-identified Incels and found them to experience "masculinity challenges", which was conceptualized as participants' struggles to prove their manhood through interpersonal, sexual or intimate relationship. The authors also reported that participants felt marginalized due to their appearance, and experienced negative emotions related to their inceldom.

In a study of posts collected on Reddit (on *r/AskReddit*), Hintz and Baker (2021) analyzed 77 posts from former Incels, describing the reasons that contributed to their inceldom. Using thematic analysis, the authors identified several factors explaining how Incel identities are developed and sustained. Physical appearance (eg. body weight, height), ability status (eg. speech impediment, learning disability), mental health issues (eg. social anxiety, depression), and emotional and physical abuse at home (eg. emotionally abusive mother or father) were common themes. Other themes included: personality issues and social ineptitudes, being closeted about one's sexual orientation or gender identity, a lack of effort, and certain beliefs about masculinity, sex, and relationships.

In line with the results from the 2019 survey (SergeantIncel, 2019) which highlighted negative mental health among *Incels.co* users, several studies have reported on psychological and social issues prevalent among Incels. Expressions of loneliness,

hopelessness and depression were observed in Incel forums (Chopite, 2022; Høiland, 2019; Jaki et al., 2019; Jones, 2020; Maxwell et al., 2020; Regehr, 2020; Rubertsson, 2019; Williams, 2020). A quarter (25%) of threads analyzed in one study contained “*it’s over,*” reflecting users’ lack of hope of escaping their predicament, a view also expressed by discussion of the *blackpill* (Jaki et al., 2019). Congruent with this fatalistic outlook, several members of these forums have openly discussed their suicidal thoughts and plans online (Baele et al., 2019; Cottee, 2020; Daly & Laskovtsov, 2021; G. Glace et al., 2021; Hoffman et al., 2020; Jaki et al., 2019; Jones, 2020; Maxwell et al., 2020; Rubertsson, 2019; Speckhard et al., 2021; Williams, 2020). These data substantiate the high prevalence of suicidal ideation reported in the 2019 survey (67.5%) and by Speckhard et al. (2021, 2022)(47.8%). This suggests that the Incel community is characterized by a significantly higher prevalence of suicidal ideation than average national estimates, which hover around 9% (Nock et al., 2008).

DISCUSSION

There is a paucity of quantitative and qualitative research on Incels. There is more research on the more general topics of adult virginity and late sexual onset. Since a majority of Incels report being virgins and many say they feel “out of sync” with others who have had sexual experiences, we may ask what distinguishes this sub-set of adults without sexual experiences from others. Incel forum participants are culturally and demographically diverse (e.g., SergeantIncel, 2019; Speckhard et al., 2021), and their lack of sexual experiences is like that of other sexually inexperienced adults who do not have negative attitudes toward women. Like adult virgins and late bloomers, Incels’ negative body image, shyness and poor social skills, compounded by inexperience with sexual and romantic relationships, contribute to restricting their building rapport with romantic or sexual partners. It therefore appears that Incels constitute the minority of sexually inexperienced male adults who embrace anti-women sentiments and choose to express them online. It has been reported that Incels with an autism-spectrum diagnosis (ASD) and a history of having been bullied were more likely to glorify Incel killers and fantasize about raping and inflicting violence themselves (Moskalenko et al., 2022). Although it has been documented that some of the Incel-motivated attacks and mass murders were perpetrated by men who had been diagnosed with ASD (e.g., Alter, 2015; Duke, 2014; Thompson, 2021), the research literature suggests that people with ASD are not more likely than the general population to engage in violent crime (Mouridsen et al., 2008; Woodbury-Smith et al., 2006). It has been suggested that when violent behavior does occur, it is the result of third variables, such as poor parental control, family environment, criminality, bullying, or psychiatric comorbidity (Del Pozzo et al., 2018).

Since the belief in the *blackpill* ideology is an essential part of the incel identity, we suggest that the 3N model of radicalization (Kruglanski et al., 2019) may help us

better understand what motivates people identify with this group and its belief system. The 3N model has been used to explain the process of violent radicalization in the context of terrorism research, and was also recently used to explain adherence to conspiracy theories (Leonard & Philippe, 2021). It posits that three factors are involved in the process of radicalization: *Need*, *Narrative* and *Network*.

Need refers to the universal *quest for significance*, the need to “be someone” and to feel that one’s life has meaning (Kruglanski et al., 2013). The 3N theory suggests that people will seek a *Narrative* – a shared belief system – to explain their unmet needs and identify the actions required to regain significance. For some adults who struggle with their lack of sexual activity, the *blackpill* provides an explanation of their celibacy, and offers guidance as to how to regain significance. In Incel forums, two courses of action are commonly endorsed: violence and resignation. Glorification of violent individuals, justification of violence as a legitimate reaction to their predicament, dehumanization of women, and calls for uprisings are evoked following killings perpetrated by self-identified Incels (Baele et al., 2019). These features may increase the risk of carrying out violent attacks (Baele et al., 2019; Bélanger et al., 2019). The second course of action, resignation, is consistent with the nihilistic nature of the *blackpill*, which rejects the idea that they could improve their situation, even through violence (Baele et al., 2019). According to this theory, forum discussions and behaviors are not aimed at causing societal change, but rather at providing a narrative that helps them accept their hopeless situation. One outcome of the acceptance of a hopeless narrative may be suicidal thoughts and increased attraction of suicide as a solution, which may be seen in the omnipresence of posts glorifying suicide (Baele et al., 2019), and in the high prevalence of those who claim to have considered suicide.

Finally, according to the 3N model, once people adhere to a narrative, they are likely to seek the presence of like-minded individuals, forming a *Network* (Kruglanski et al., 2013). Online Incel forums provide an accessible gathering space to meet like-minded people. These online spaces may eventually morph into echo chambers, where the Incel worldview is crystallized, and ideas are polarized. Participation in Incel forums can contribute to further solidifying their identity and widening the gap between Incels and others.

The psychosocial causes and consequences of identifying as an Incel (“Incelldom”) are difficult to discern. It is likely that causes and consequences interact and reinforce each other. Nevertheless, it seems reasonable to assume that poor social skills (particularly heterosocial skills), lack of dating experiences, an absence of positive peer relationships, shyness, anxiety, autism, bullying, late pubertal maturation, and having body image issues, may all increase the probability of experiencing a lack of sexual activity. Consequences reported include psychological ailments, such as loss of self-confidence, depression, anxiety, feeling of loneliness and suicidal thoughts and

intentions. Suicidal thoughts are a mental health issue commonly reported in studies of Incel forums. However, suicidal thoughts have not been documented in studies of other sexually inexperienced males. On this subject, previous reviews have found that some online behaviors commonly found in Incel forums, such as normalization, triggering, competition and contagion, can significantly increase the potential for self-harm (Daine et al., 2013; Marchant et al., 2017).

Many Incels feel as though they have missed an important development milestone, which may contribute to feelings of being sexually “off time” in comparison with their peers. In this regard, the longer an individual differs from his peers by a lack of sexual experiences, the more he is susceptible of being stigmatized (or feeling stigmatized) for his virginity. Over time, Incels may come to see their celibacy as a permanent way of life. In forums, this is observed in discussion threads that discourage hope and any “illusions” of escaping celibacy. The embrace of masculine sexual norms may further exacerbate feelings of embarrassment and shame. Studies have shown that adhering to masculine sexual scripts may contribute to a greater sense of embarrassment and shame if one deviates from them (Zajdel, 2021). Some authors suggest that people who violate stereotypical standards of masculinity are encouraged to see themselves as inferior and devaluated (Laker, 2012). Williams (2020) and Daly and Reed (2022) reported that in Incel forums, men frequently refer to themselves as “ugly” and “subhuman”.

More research on the mental health of members of this community is needed. For example, it would be helpful to understand if their reported mental health issues predated their participation in Incel forums, or if these forums may have contributed to create, or exacerbate underlying vulnerabilities through the forum’s frequent discussions of suicide and hopelessness. For example, 54.4% of participants in the study by Speckhard et al. (2021) said that the forum made them “feel hopeless.” Similarly, it would be interesting to understand how involuntary celibates were initially drawn to Incel forums, since only a minority of involuntary celibates participate on these forums.

Potential for Interventions

Knowledge on the psychology of involuntary celibacy may help identify multiple opportunities for prevention. Important efforts could be deployed to provide healthy coping tools and training in their everyday use, to socially withdrawn youths and adults. For instance, the development of social and interpersonal skills necessary for the exploration of social relationships holds great potential for generating a sense of relatedness (Li & Wong, 2015; Wong, 2009). These skill training activities may reap greater benefits if implemented from an early age. For example, school programs such as *Zippy’s Friends*, have proven to increase children’s repertory of helpful coping strategies and interpersonal skills to deal with psychosocial issues; such as bullying, loneliness, relationship issues, and suicidal thoughts. (Mishara & Ystgaard, 2006).

Concerning loneliness, a meta-analysis reported that strategies designed to address maladaptive social cognitions were associated with the largest effect size ($d=-0.598$), considerably higher than interventions seeking to improve social skills, enhance social support or increase opportunities for social contact (Cacioppo et al., 2015; Masi et al., 2011). Similarly, cognitive restructuring techniques could be used to reduce body image concerns and self-esteem issues that Incels experience.

Finally, interventions targeting Incels would not be complete without addressing the negative beliefs that many Incels hold about women. Educational efforts could help promote healthy relationships (Maxwell et al., 2020). Clinicians could also discuss virginity scripts and stereotypical standards of masculinity with young unintentional virgins (Zajdel, 2021). This may lead some young men to reconsider how social and cultural norms can influence their relationships with others, particularly with women, and how this can affect their mental wellbeing. Currently, online therapy presents an interesting method for reaching members of online communities, including socially anxious individuals (Maxwell et al., 2020).

Limitations

More qualitative and quantitative research is needed to obtain reliable and valid information on the social and psychological characteristics of this sub-group of involuntary celibates who embrace anti-women ideas. Results summarized in this review come from samples that may not be representative of the large Incel community. Studies that reported the prevalence of mental health issues among Incel forum users were limited by their reliance on self-report measures, which may not be reliable. Incel forum users who participated in these surveys may have different characteristics from non-participants. Finally, since we focused on papers written in English or French and we may have missed important studies published in another language.

CONCLUSION

Incels share several characteristics with adult virgins and young adults experiencing late sexual onset. Their belief in an anti-women ideology called the *blackpill* seems to be a differentiating factor. Mental health issues and suicide are prominent topics of discussion in Incel forums, but we do not know if they preceded or succeeded their participation in the forums. Deeper insights, based upon empirical data, concerning the defining psychological and social features of Incels are required before targeted interventions can be most effectively designed to address their misogynistic views and mental health issues, as well as their risk of engaging in harmful behavior against women or against themselves.

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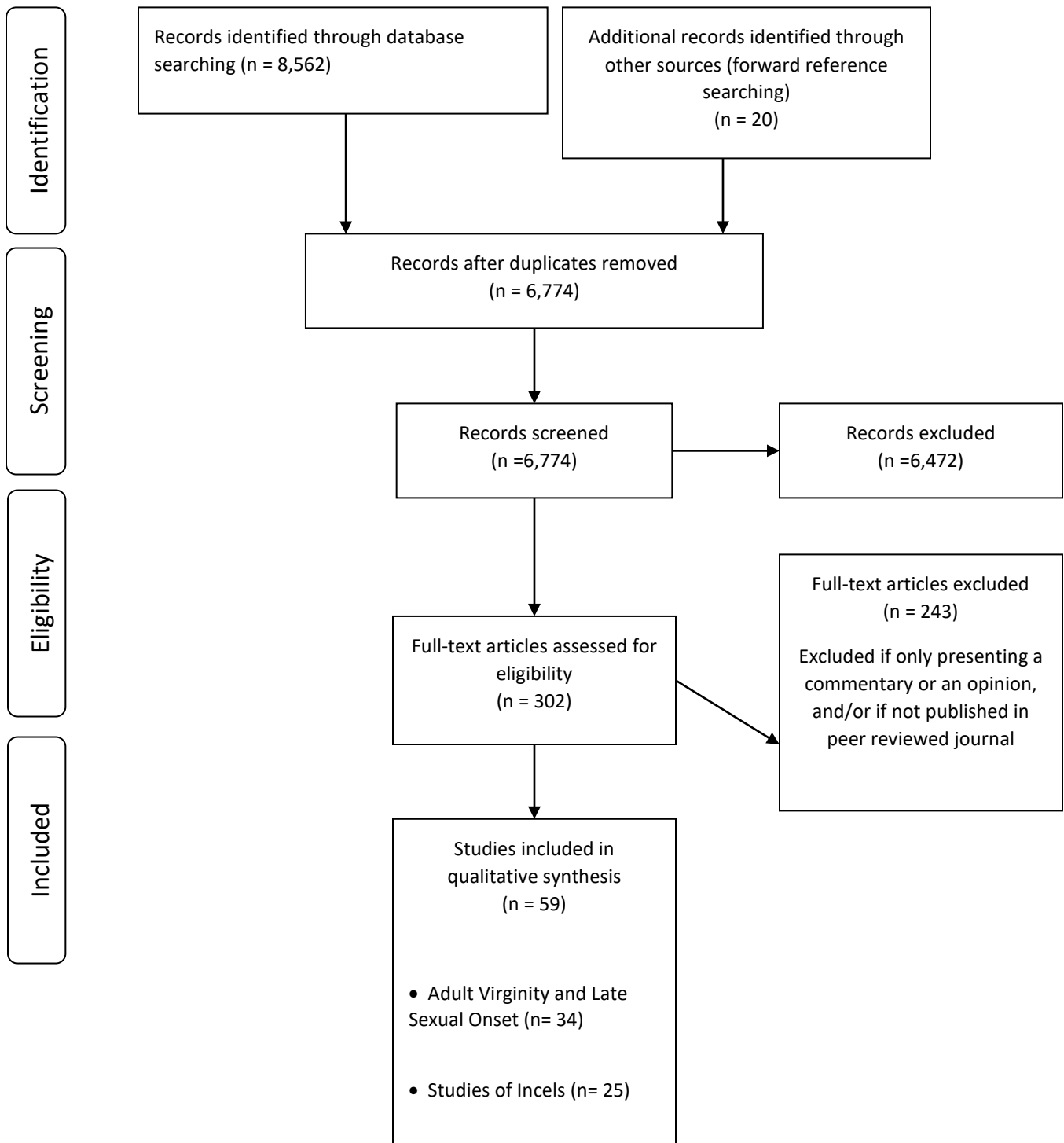
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FIGURE 1. PRISMA Flow diagram of the identification, screening, eligibility assessment, and inclusion of articles



SUPPLEMENTAL MATERIAL

SUPPLEMENTARY MATERIAL

S1. Syntax implemented in specialized databased

PubMed	
	Syntax
A	("Community Networks"[Mesh] OR "Online Social Networking"[Mesh] OR "Peer Group"[Mesh] OR "Population Groups"[Mesh] OR "Social Identification"[Mesh] OR identit*[TI] OR communit*[TI] OR community[TI] OR identit*[TI] OR sexual*[TI] OR gender*[TI] OR culture[TI] OR Subculture*[TI] OR incel[TI] OR incels[TI] OR "Involuntary Celibate"[TI] OR "Involuntary Celibates"[TI])
B	("Sexual Abstinence"[Mesh] OR ((low[TI] OR lack[TI] OR insatisfact*[TI]) AND (intimac*[TI] OR sexual*[TI] OR intercours*[TI] OR relationship*[TI] OR "mate"[TI] OR "mates"[TI] OR girlfriend[TI] OR friend*[TI] OR partner*[TI])) OR ((Sexual*[TI] OR fornicat*[TI] OR fuck*[TI] OR pussy[TI] OR romantic*[TI] OR romantic*[TI]) AND (Abstinence*[TI] OR none[TI] OR lack[TI] OR insatisfact*[TI] OR absence[TI] OR impossibilit*[TI])) OR inceldom*[TI] OR incel*[TI] OR "blackpill"[TI] OR "bluepill"[TI] OR "redpill"[TI] OR "men going their own way"[TI] OR "simps"[TI] OR "MGTOW"[TI] OR virgin*[TI] OR manosphere[TI] OR "involuntary celibates"[Mesh] OR (toxi*[TI] AND (men[TI] OR masculinit*[TI])))
PsychInfo	
AA	((IT:"Social Networks" OR IT:"Online Behavior" OR IT:"Online Community" OR IT:"Ingroup Outgroup" OR IT:"Support Groups" OR IT:"Interpersonal Interaction" OR IT:"Social Connectedness" OR IT:"Social Capital" OR IT:"Social Interaction" OR IT:"Social Support" OR IT:"Friendship" OR IT:"Peers" OR IT:"Reference Groups" OR IT:"Population" OR IT:"Cultural Identity" OR IT:"Ethnic Identity" OR IT:"Gender Identity" OR IT:"Group Identity" OR IT:"Identity Crisis" OR IT:"Identity Formation" OR IT:"Social Identity" OR IT:"Group Identity" OR IT:"Identity Formation" OR IT:"Self-Concept" OR IT:"Majority Groups" OR IT:"Minority Groups" OR IT:"Intersectionality" OR IT:"Ethnic Identity") OR (TI:identit* OR TI:communit* OR TI:community OR TI:identit* OR TI:sexual* OR TI:gender* OR TI:culture OR TI:Subculture* OR TI:incel OR TI:incels OR TI:"Involuntary Celibate" OR TI:"Involuntary Celibates"))
BB	((IT:"Sexual Abstinence" OR IT:"Sociosexual Orientation" OR IT:"Virginity") OR ((TI:low OR TI:lack OR TI:insatisfact*) AND (TI:intimac* OR TI:sexual* OR TI:intercours* OR TI:relationship* OR TI:"mate" OR TI:"mates" OR TI:girlfriend OR TI:friend* OR TI:partner*)) OR ((TI:Sexual* OR TI:fornicat* OR TI:fuck* OR TI:pussy OR TI:romantic* OR TI:romantic*) AND (TI:Abstinence* OR TI:none OR TI:lack OR TI:insatisfact* OR TI:absence OR TI:impossibilit*)) OR

Running head: PSYCHOSOCIAL CHARACTERISTICS OF INCELS

	TI:inceldom* OR TI:incel* OR TI:"blackpill" OR TI:"bluepill" OR TI:"redpill" OR TI:"men going their own way" OR TI:"simps" OR TI:"MGTOW" OR TI:virgin* OR TI:manosphere OR (TI:toxi* AND (TI:men OR TI:masculinit*))))))
SCOPUS	
AAA	(INDEXTERMS("Sexual Abstinence" OR "involuntary celibates" OR "Involuntary Celibates" OR " Involuntary Celibate") OR TITLE(((low OR lack OR insatisfact*) AND (intimac* OR sexual* OR intercours* OR relationship* OR "mate" OR "mates" OR girlfriend OR friend* OR partner*)) OR ((Sexual* OR fornicat* OR fuck* OR pussy OR romantic* OR romantic*) AND (Abstinence* OR none OR lack OR insatisfact* OR absence OR impossibilit*)) OR inceldom* OR incel* OR "blackpill" OR "bluepill" OR "redpill" OR "men going their own way" OR "simps" OR "MGTOW" OR virgin* OR manosphere OR (toxi* AND (men OR masculinit*))))))
BBB	(INDEXTERMS(("Community Networks" OR "Online Social Networking" OR "Peer Group" OR "Population Groups" OR "Social Identification")) OR TITLE(identit* OR communit* OR community OR identit* OR sexual* OR gender* OR culture OR Subculture* OR incel OR incels OR "Involuntary Celibate" OR "Involuntary Celibates"))
Google scholar	
AAAA	Incel OR Inceldom OR "involuntary celibate" OR "involuntary celibacy"