Abstract

Some of the most radicalized members of involuntary celibate ('incel') communities have committed violent attacks with multiple victims, highlighting the risk they pose to society—particularly women. This preliminary research aimed to determine the psychological attributes that may contribute to inceldom. Using self-report questionnaires, Study 1 examined whether misogyny, right-wing authoritarianism (RWA) and social dominance orientation (SDO) predicted the endorsement of incel ideology in a male community sample ($n = 65$). Again using self-report measures, Study 2 explored whether narcissistic traits and autistic traits predicted incel traits while controlling for misogyny, and if childhood traumatic experiences mediated these relationships, in a male community sample ($n = 282$). Misogyny and RWA were found to positively predict endorsement of incel ideology, while SDO was negatively predictive. Autistic and narcissistic traits negatively predicted incel traits, and childhood traumatic experiences mediated the relationship between narcissistic traits and incel traits. Self-identified incels scored higher than non-incels on incel traits, narcissistic traits, misogyny, and childhood traumatic experiences, but there were no differences in levels of autistic traits between the two groups. Results are discussed in relation to practical implications. By better understanding the individual differences underlying inceldom, improved deradicalization support systems can be implemented for those wishing to leave the incel community.

Introduction

In the past decade, involuntary celibate or 'incel' subculture has been propelled into public consciousness (Baselice, 2024). However, misunderstandings surrounding inceldom are common in these mainstream accounts, and there is a lack of specialized support to prevent boys and men entering this subculture or to assist them with leaving it. There have been a growing number of incel-motivated violent attacks across North America and Western Europe (CASIS-Vancouver, 2021; de Roos et al., 2024; Tomkinson et al., 2020), illustrating the severity of this extreme ideology and the real-life implications it can hold. It is therefore imperative that we develop a comprehensive understanding of the individual difference factors that can contribute to engagement with incel ideology.

Incels, who are predominantly men, tend to desire sexual or romantic relationships with women, but find themselves unable to attain them (Jaki et al., 2019; Young, 2019). For these men, "inceldom" is an identity and inherent social status, not a transient phase (Cottee, 2021). According to incels, two factors are responsible for their exclusion from the dating market: feminism and biological determinism. Consequently, incels resent women and envy sexually active men, believing that a small proportion of dominant men hoard the majority of women in the dating sphere (Demetriou, 2022). This attitude is also reflected in the "80/20 rule", a key component of the incel worldview (Costello et al., 2024). According to the 80/20 rule, 80% of women choose from a pool of only 20% of men – those

who possess the highest status based on wealth or stereotypically attractive physical traits (Cottee, 2021). Because incels lack these traits, this is argued to reduce their chances of entering a sexual relationship, lowering their social position in turn (Jones et al., 2020). Accordingly, they focus on restrictions they believe society has placed on them, resulting in a narrative of victimization which is used to explain and justify their resentment of women and 'alpha' men, and is frequently perpetuated in an online space known as the 'manosphere'.

It can be argued that the expansion of the internet has given individuals an anonymous space to share their misogynistic, sexist and harmful views, and these online spaces are increasing in popularity and usage (Farrell et al., 2019). This expansion has also led to new ways of communicating, whereby large communities within the manosphere have adopted a shared lexicon of neologisms and inside jokes, making the content of their online exchanges often unintelligible to outsiders (Waśniewska, 2020). According to the online disinhibition effect (Suler, 2004), online anonymity results in a lack of real-life feedback or feared consequences; in this way, such anonymity can facilitate the expression of extreme views. Analysis of the movement found that online references to inflicting violence were eight times higher in 2022 than in 2016 (Townsend, 2022), illustrating the rapid growth of this ideology. The echo chamber effect states that individuals gravitate towards communities that share their beliefs (Jaki et al., 2019); this may explain why viewpoints can become more

extreme over time when they are expressed, without criticism, within a bubble of likeminded people (Colleoni et al., 2014). In this way, such views remain unchecked, instead percolating over time.

Time spent on the manosphere has been found to correlate positively with self-reported levels of misogyny (Speckhard et al., 2021). Misogynistic views are thought to be encouraged within incel communities, where they attract attention and praise from their peers (Blake et al., 2021). Indeed, existing literature has identified misogyny as the largest predictor of inceldom (Farrell et al., 2019). It is possible that the frequent social rejections experienced by incels trigger such misogynistic beliefs (Scaptura & Boyle, 2020). These are exemplified in the manifestos of men who have committed incel-related violent attacks (Maxwell et al., 2020), thereby highlighting the dangerous role misogyny can play in the radicalization of vulnerable individuals into the incel community (Habib et al., 2022). This attitude has been directly linked to violent behaviors, with online misogyny observed to co-occur with domestic and family violence (Blake et al., 2021). Similarly, in a study by Johnston and True (2019), hostile sexism and support for violence against women were observed to predict support for violent extremism. According to Díaz and Valji (2019), misogyny is essentially a 'gateway' for violence; it is therefore vital that characteristics such as misogyny are recognized as warning signs of extremist behavior.

Online communities are not the only enablers of misogynistic viewpoints. Misogyny can also be driven by attitudinal factors such as right-

wing authoritarianism (RWA) and social dominance orientation (SDO)—two main factors which may predict men's endorsement of misogyny (Hansmeyer, 2021). The existing literature on misogyny suggests that hostile attitudes toward women are connected to SDO (Morssinkhof, 2021), with RWA mediating this relationship (Duckitt & Sibley, 2007).

Right-Wing Authoritarianism

Right-wing Authoritarianism (RWA; Altemeyer, 1981) represents the adherence to and support for authoritative structures, conventional norms and traditions (Morssinkhof, 2021). Individuals who are high on this orientation are naturally submissive to authority figures and are conformist in thought and behavior (Altemeyer, 1981). Altemeyer (2004) suggests that authoritarian followers have feelings of hostility within them, leading them to look for safe and approved ways to express this and acting aggressively in the name of said authorities (Altemeyer, 2007). This is important to consider, as online communities allow individuals to express themselves freely while remaining unchecked, and this may explain why some incels go on to commit violent attacks—they may perceive the incel community as providing permission to act violently. They are acting in the name of authorities, who in this case represent the most radicalized, high-ranking members of the incel community.

High-RWA individuals often display hostility towards individuals that deviate from the norm, as they are motivated by a wish for social cohesion and are driven by the perceived threat posed by deviant individuals

(Altemeyer, 1981). This orientation includes a preference for a traditional role divide between men and women, with the latter regarded as the lesser sex (Duckitt & Sibley, 2007). This links to incels' beliefs about women: if women represent a lesser sex, then incels are enabled to act against them in a way which reflects this hierarchy.

Social Dominance Orientation

A preference for a traditional gender divide can also be seen in individuals who score high on social dominance orientation (SDO; Pratto, Sidanius et al., 1994). This orientation involves an endorsement of societal hierarchies (Cotterill et al., 2014), whereby it is believed that all modern, stable societies consist of a group-based hierarchy in which one group holds disproportionate power over subordinate groups (Pratto, Sidanius et al., 1994; Pratto, Lee et al al., 2011). Research by Hansmeyer (2021) found that hostile attitudes and misogyny are linked to SDO, indicating that SDO may be a catalyst for inceldom.

Those that are high in SDO wish for dominance over outgroups (e.g., women; Duckitt & Sibley, 2007). The acceptance of inequality between men and women may explain why those high in SDO often also score high in misogyny (Morssinkhof, 2021), and therefore why SDO can predict hostile sexist attitudes (Austin & Jackson, 2019). Social dominance theory (Sidanius & Pratto, 1993) states that inequality among groups is maintained through the use of disproportionate force against subordinate groups. This is done through the promotion of hierarchy-enhancing legitimizing myths:

ideologies that maintain group inequality and often legitimize discrimination. It is the acceptance of these myths that enables discrimination and hatred towards minority groups (Pratto, Sidanius et al., 1994). Avery (1988) highlights that men hold more hierarchy-enhancing attitudes than women, which may contribute to the large proportion of men in powerful societal positions and why there is a great amount of sexism and misogyny within many societies. With incels sharing misogynistic posts online, this could be their attempt at creating legitimizing myths. The more they spread such false information, the more normative these ideas become, and the less likely it is that incels will face retaliation when expressing their beliefs.

Narcissism

Narcissism is another trait that may help explain predisposition to this ideology. Incels are highly preoccupied with their perceived sense of unjust victimhood (Cottee, 2021). They often believe they are innately deserving of special treatment, even at the expense of others (Palma, 2019). They also have certain expectations regarding the objectification of women, women's purpose, and men's needs, and they become increasingly frustrated when this is not their reality. These attitudes may reflect the presence of narcissistic traits, which include a heightened sense of entitlement and have been associated with a tendency to objectify others (Lachowicz-Tabaczek et al., 2021). Individuals with narcissistic personality traits who experience threats to their self-esteem may engage in rationalization of unacceptable

behaviors by generating false narratives (Brown, 1997), which may underpin the finding that references to rape and violent attacks are posted in online incel discussion forums every 29 minutes (Centre for Countering Digital Hate, 2022). The presence of this trait has been linked to the commission of incel-related violence (Broyd et al., 2022), and it has been suggested that the combination of narcissism and autistic traits may be particularly salient for explaining these behaviors (Allely & Faccini, 2017).

Autistic Traits

Individuals with autism spectrum disorder (ASD) are overrepresented among the incel community (Costello et al., 2024; Speckhard & Ellenberg, 2022), where they are known as 'auticels' (Bloom, 2022). Speckhard et al. (2021) observed that one-quarter of their incel sample self-reported symptoms of ASD. Autistic traits could help explain why some incels find socializing so difficult, contributing to their inability to establish intimate relationships and the subsequent isolation that they experience. The social and communication vulnerabilities associated with autistic traits manifest in different ways. These include trouble initiating and maintaining social interactions and difficulty understanding non-literal communication, facial expressions, and emotion processing (Nuske et al., 2013). While poor problem solving and emotional dysregulation may predispose an individual to behave in a violent manner, a lack of empathy and interpersonal connection with others may increase the possibility that violent thoughts are acted upon if there is a failure to conceptualize others as people who

become victims (Woodbury-Smith et al., 2022). For instance, Allely and Faccini (2017) found that ASD was eight times higher in their lone shooter sample than in the general population. While ASD does not make someone more likely to be a mass shooter, a small proportion of individuals with ASD may become more likely to engage in violence, especially when additional risk factors such as mental illness or childhood trauma are present.

Childhood Trauma

Childhood trauma is another factor that could make individuals more vulnerable to extremism. Jasko et al. (2016) explored an individual's susceptibility to being radicalized, finding over 35% of their sample contained ideological extremists who experienced childhood trauma. Additionally, Langman (2009) identified a particular subgroup of 'traumatized' school shooters, finding that they often come from 'broken homes' suffering physical/sexual abuse, with one parent having a history of substance misuse. Although school shooters may not have the same motivations nor ideologies as incels, those with violent tendencies may have had a similar childhood history. Moreover, social exclusion and bullying are both common among adolescents with ASD (Kloosterman et al., 2013), which can fuel resentment and hatred toward their peers. The adolescent years place particular emphasis on social performance as a metric for "worthiness" and can be extremely difficult for someone who struggles to understand interpersonal behavior. However, although a broad range of studies have examined the relationship between childhood trauma and

criminality (Baron & Forde, 2020; Dalsklev et al., 2019; Grella et al., 2005; Li, 2023; Likitha & Mishra, 2021; Scanlon et al., 2019), there is a lack of research surrounding incels specifically, representing a gap that this research aims to bridge.

The Current Research

With the incel community predominantly proliferating online, it is impossible to control its expansion. Thus, to facilitate the prevention of radicalization into these communities, it is critical to identify and understand the underlying factors that predict inceldom. Consequently, this preliminary research aims to explore the relationships between endorsement of incel ideology and misogyny, RWA, SDO (Study 1) and the relationships between narcissistic traits, autistic traits, childhood trauma, and incel traits (Study 2). With this insight, it may be possible to recognize individual difference factors that may predispose young men and boys to vulnerability towards this form of radicalization.

Study 1

Existing research highlights that SDO and RWA independently predict misogynistic beliefs (Morssinkhof, 2021) and that misogyny is the biggest motivator for gender-based violence and extremist recruitment (CASIS-Vancouver, 2021). As incels have shown a higher level of violence than non-incels (Speckhard et al., 2021), it is hypothesized that higher scores on

SDO, RWA and misogyny will positively predict the endorsement of incel

ideologies (H_1), with misogyny being the most significant predictor (H_2).

Method

Participants

Convenience sampling was used to recruit participants via social

media platforms (Facebook, Instagram, and Reddit) and a university

recruitment system (SONA). Inclusion criteria required participants to be

male and aged 18 or over. After removing datapoints that represented

incomplete or careless responding, the final sample comprised 65

participants. 40.9% of participants were aged 18-24, followed by 24.2%

aged 25-34, 7.6% aged 35-44, 12.1% aged 45-54, 7.6% aged 55-64, and

6.1% aged 65 and above.

Materials

Right-wing Authoritarianism. The Right-Wing Authoritarianism Scale

(Altemeyer, 2007) was used to measure RWA. This 22-item questionnaire

asks respondents to indicate the degree to which they agree with each

statement using a 9-point Likert scale (1 = very strongly disagree, 9 = very

strongly agree). Higher scores indicate the endorsement of authoritarian

viewpoints and conformity. Internal consistency was acceptable, as

indicated by Cronbach's α = .73.

Social Dominance Orientation. The 16-item Social Dominance

Orientation Scale (Pratto, Sidanius et al., 1994) was used to measure SDO.

Responses were measured using a 7-point Likert scale (1 = strongly

disagree, 7 = strongly agree). Higher scores on this measure indicate a preference for social hierarchies. The SDO scale was found to have good reliability in this study (α = .89).

Misogyny. Misogyny was assessed via the Misogyny Scale (MIS; Rottweiler & Gill, 2021). The MIS has 10 items which are measured using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Higher scores indicate higher levels of misogynistic beliefs. The MIS displayed excellent internal consistency in this study (α = .92).

Inceldom Questionnaire. Endorsement of incel ideology was measured using a questionnaire adapted from Speckhard et al. (2021). Speckhard et al.'s (2021) original questionnaire included 68 questions, from which 18 relevant questions were selected for inclusion in this study. Questions were removed when not relevant to this study and when they raised ethical concerns (e.g., "I would rape if I could get away with it"). Cronbach's alpha analysis indicated the adapted 18-item scale had good internal consistency (α = .83). Participants indicated the extent to which they agreed with statements on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Higher scores represent greater endorsement of incel ideology. The full adapted scale is available at BLINDED.

Procedure

Ethical approval was obtained from the researchers' university before data collection began. Prospective participants navigated to the study on Qualtrics, where they read a participant information sheet and completed a

consent form. They then filled out the four questionnaires, presented in random order to control for order effects. They were then debriefed and thanked for their time.

Results

Following data screening, a Pearson's correlation analysis was conducted to assess the relationships between the study variables (see Table 1). Next, a multiple regression was conducted to assess whether misogyny, RWA and SDO predicted greater endorsement of incel ideology (see Table 2).

INSERT TABLES 1 AND 2 ABOUT HERE

The model was significant, $F(3, 61) = 27.00$, $p < .001$, $R^2 = .57$, $R^2_{adj} = .55$. All three variables significantly contributed to the prediction of endorsement of incel ideology. Increases in misogyny ($p < .001$) and RWA ($p = .033$) positively predicted endorsement of incel ideology, while an increase in SDO was associated with lower levels of incel ideology endorsement ($p = .030$).

Summary

This study hypothesized that RWA, SDO and misogyny would positively predict the endorsement of incel ideology (H_1), and that misogyny would be the strongest predictor (H_2). The first hypothesis was partially supported by the results: RWA and misogyny were found to positively predict endorsement of incel ideology, but contrary to expectations, SDO emerged as a negative predictor. However, the second hypothesis was

supported, as misogyny was the most significant predictor of endorsement of incel ideology in this study.

Study 2

According to Faccini and Allely and Faccini (2017), the co-occurrence of narcissism may render individuals with autistic traits more at risk of engaging in risky and violent behavior. However, this combination is not necessarily sufficient to propel an individual on the path of intended violence, and other factors such as traumatic childhood experiences should also be taken into consideration. Consequently, Study 2 aims to investigate whether autistic traits and narcissistic traits positively predict levels of incel traits, and if childhood traumatic experiences impact this relationship. Given its established relationship with incel ideology (Perliger et al., 2022), misogyny is included as a covariate. It is hypothesized that autistic and narcissistic traits will positively predict levels of incel traits when controlling for misogyny (H_1), and childhood trauma will mediate this relationship (H_2).

Method

Participants

Convenience sampling was used to recruit participants via social media platforms
(Facebook, Instagram, and Reddit). The invitation was shared across a variety of

Reddit threads, including r/samplesize and r/BlackPillScience. Inclusion

criteria required participants to be male and aged 18 or over, and only men

were eligible to participate. An *a priori* power analysis using G*Power (Faul

et al., 2007) was utilized to determine target sample size. Assuming a

medium effect size and a standard alpha of .05, 164 participants were

needed to achieve 80% power. In total, 618 individuals participated;

however, 309 did not complete the questionnaires and 27 did not meet the

inclusion criteria. Thus, the final sample comprised $n = 282$ adult men, with

35.1% indicating that they self-identified as an incel ($M_{age} = 29.67$, $SD =$

7.57). Participants were offered the opportunity to enter a prize draw for

one of two £25 Amazon vouchers at the end of their participation, but this

was completely voluntary and did not affect their rights as participants.

Materials

Autistic Traits. The Autism Quotient-10 (AQ-10; Allison et al., 2012)

was used to measure autistic traits. The AQ-10 consists of 10 items and is

an adapted version of the AQ-50 (Baron-Cohen et al., 2001) and is designed

for use with adults with normal intellectual functioning. The AQ-10 is

suggested to be just as effective at evaluating autistic traits as the AQ-50

(Booth et al., 2013), retaining the predictive validity of the original scale

(Booth et al., 2013).

In the current study, a 6-point Likert scale was utilized to measure

responses, ranging from 1 (very strongly agree) to 6 (very strongly

disagree). Higher scores indicate higher levels of autistic traits. Initially, the

internal consistency for the AQ-10 did not reach the threshold for

acceptability (α = 0.50); consequently, two items were removed (Questions

8 and 9), resulting in an eight-item measure (α = 0.72).

   Narcissistic Traits. The Narcissistic Personality Inventory-16 (NPI-16;

Ames et al., 2006) was used to measure narcissistic traits. This scale

consists of 16 questions measured using a binary response format, whereby

participants are presented with a series of statement pairs and asked to

indicate which they believe better represents themselves. A score of one is

given for each 'narcissistic' response (e.g., "I like having authority over

people"), and zero for non-narcissistic responses (e.g., "I don't mind

following orders"). A higher score therefore indicates higher levels of

narcissistic traits. In the current study, the scale displayed acceptable

internal consistency (α = .60), mirroring that of other research (Mathieu &

St-Jean, 2013).

   Childhood Traumatic Experiences. The 6-item Childhood Traumatic

Events Scale (CTES; Pennebaker & Susman, 2013) was used to assess the

presence of childhood trauma. Participants were asked if they had

experienced traumatic events (0 = no; 1 = yes). If they chose yes, they were

also asked to rate how traumatic they found the event, using a 7-point

Likert scale (1= not at all traumatic, 7 = extremely traumatic). Scores were

then summed to result in an overall trauma score, whereby a higher score

indicates greater presence and impact of childhood trauma. The scale also

asks participants at what age the trauma was experienced; however, as this

was not relevant to the present study, these questions were omitted. The

CTES showed very good reliability in this study ($\alpha = 0.86$).

    Incel Traits. The Incel Traits Scale (Scaptura & Boyle, 2020) was used

to measure traits associated with the incel community. These traits refer to

the characteristics and emotions attributed to the incel movement.

Descriptive words (e.g., "paranoid") are paired with an antonym (e.g.,

"trusting"), resulting in a list of 25 word pairs. Measured on a sliding scale,

participants are presented with the two opposing words and asked to

indicate which one represents them better. The internal consistency of the

scale has been shown to be excellent ($\alpha = 0.93$; Scaptura & Boyle, 2020);

this was also observed in the current study ($\alpha = 93$).

    Misogyny. The Misogyny Scale (MIS; Rottweiler & Gill, 2021) was

again utilized to assess misogyny. In the current study, the scale displayed

excellent internal consistency ($\alpha = .96$).

Procedure

    After obtaining ethical approval from the researchers' university,

prospective participants were recruited for the study on the aforementioned

social media platforms (see Participants section). After reading the

Participant Information Sheet on Qualtrics, they filled out a consent form,

followed by the five questionnaires in random order. They were then

directed to a debrief page where they were given more information about

the study, signposted to relevant US- and UK-based support services

(Samaritans, Prevent, Crisis Text Line, and National Suicide Prevention

Hotline), and thanked for their time. Finally, they were given the opportunity to enter a prize draw for one of two £25 Amazon vouchers by providing their email address, which was stored separately from their anonymous survey responses.

Results

After screening the data for assumptions of regression, missing data were replaced with the mean value. A Pearson's correlation analysis was then conducted to examine relationships between the study variables (see Table 3).

INSERT TABLE 3 ABOUT HERE

Next, a hierarchical regression was conducted to test H_1 (see Table 4). In Model 1, the predictor was misogyny and the outcome variable was incel traits. The model was significant, $F(1, 280) = 264.42$, $p < 0.001$, $R^2 = .47$, $R^2_{adj} = 0.48$. Autistic traits and narcissistic traits were added as predictors in Model 2, resulting in a statistically significant increase in R^2 of .06, $F(3, 278) = 109.77$, $p < 0.001$, with 54% of the variance in incel traits being explained by the predictors. All three variables significantly contributed to the prediction of incel traits: misogyny, $t = 13.69$, $p < 0.001$; autistic traits, $t = -5.21$, $p < 0.001$; narcissistic traits, $t = -1.98$, $p = 0.049$.

INSERT TABLE 4 ABOUT HERE

Next, a mediation analysis was conducted using the SPSS PROCESS macro (version 4.2; Hayes, 2022) to test H_2. The predictors were narcissistic traits (X_1) and autistic traits (X_2). The outcome variable (Y) was incel traits,

and the mediator (M) was childhood traumatic experiences. Misogyny was included as a covariate. Bootstrapped, bias-corrected 95% confidence intervals (CIs) based on 1,000 re-samples were computed for the indirect effect.

The results indicated there was a significant indirect effect of narcissistic traits on incel traits, $b = 0.109$, $SE = .071$, 95% BCa CI [0.007, 0.282], suggesting the relationship between narcissistic traits and incel traits is mediated by childhood traumatic experiences. However, there was not a significant indirect effect of autistic traits on incel traits, $b = 0.035$, $SE = 0.033$, 95% BCa CI [-0.023, 0.112]. Thus, childhood traumatic experiences did not mediate the relationship between autistic traits and incel traits.

Lastly, a series of exploratory Mann-Whitney U tests were conducted to examine whether there were group differences between self-reported incels ($n = 99$) and non-incels ($n = 183$) on the study variables. Incel trait scores were significantly higher for incels (mean rank = 192.40) than non-incels (mean rank = 113.96), $U = 4019.5$, $p < .001$. Narcissistic traits were significantly higher among incels (mean rank = 154.44) than non-incels (mean rank = 134.50), $U = 7777.00$, $p = .048$. Childhood traumatic experiences were significantly higher among incels (mean rank = 205.97) than non-incels (mean rank = 106.62), $U = 2676.00$, $p < .001$. Misogyny was significantly higher among incels (mean rank = 184.88) than non-incels (mean rank = 177.97), $U = 4753.00$, $p < .001$. However, autistic traits did not differ significantly between the two groups, $U = 9334.50$, $p = .672$.

Summary

This study predicted that autistic and narcissistic traits would positively predict incel traits (H_1), and childhood traumatic experiences would mediate this relationship (H_2), while controlling for misogyny. The first hypothesis is partially supported by the results: while both variables were significant predictors, these relationships were in the opposite direction as expected, with autistic and narcissistic traits negatively predicting incel traits. The second hypothesis was also partially supported, as childhood traumatic experiences mediated the relationship between narcissistic traits and incel traits, but did not mediate the relationship between autistic traits and incel traits. Meanwhile, additional exploratory analyses revealed that incels scored higher than non-incels on incel traits, narcissistic traits, misogyny, and childhood traumatic experiences, but there were no differences in levels of autistic traits between the two groups.

Discussion

The results of Study 1 showed that misogyny and right-wing authoritarianism (RWA) positively predict endorsement of incel ideology, while social dominance orientation (SDO) negatively predicts it. Meanwhile, the results of Study 2 suggest that autistic traits and narcissistic traits negatively predict incel traits, and that childhood traumatic experiences mediate the relationship between narcissistic traits and incel traits. Furthermore, incels scored higher than non-incels on incel traits,

narcissistic traits, childhood traumatic experiences, and misogyny, but the two groups did not differ on autistic traits.

Misogyny

Of the predictors explored in these studies, misogyny is the one that has been most frequently researched within the literature on incels. Misogyny is prominent within the manosphere and incel rhetoric (Farrell et al., 2019; Speckhard et al., 2021). Moreover, it has real-world consequences as a predictor of gender-based violence (CASIS-Vancouver, 2021) and has been a central factor in incel-motivated mass shootings (Hoffman et al., 2020). The significant findings for misogyny in the current research align with previous research by Grubbs et al. (2014), who found that men who feel entitled to sex and are dissatisfied by their unmet dating needs tend to hold deeply misogynistic views. Furthermore, Gul et al. (2022) argue that 'unwanted' celibacy is an important risk factor for misogynistic attitudes. The results of this research support previous findings, showing that misogyny significantly predicts endorsement of incel ideology and incel traits, and that self-reported incels score higher on this attribute than non-incels.

The online narratives of incels often suggest that they believe they are entitled to sexual experiences (Williams & Arntfield, 2020). Feelings of entitlement can lead to misogyny and violent attitudes towards women (Konutgan, 2020); thus, this sense of entitlement, in conjunction with the rejection they experience from women, could help explain why incels tend

to form such extreme ideas. According to Hoffman et al. (2020), as incels are unable to participate in sexual activities, this sense of entitlement combined with frequent rejection from women may result in feelings of distress, loss of masculinity, humiliation, and anger. This may transform into hostility towards women, who are blamed for said humiliation, and may help explain why misogyny is such a significant predictor of inceldom. Accordingly, this deep-seated misogynistic worldview warrants early intervention. By decreasing feelings of entitlement through education, it may be possible to reduce these misogynistic views and help protect against the radicalization of vulnerable young men and boys.

Right-Wing Authoritarianism

RWA was also found in this research to be a significant positive predictor of endorsement of incel ideology, and to correlate moderately with misogyny. Many of the ideas and beliefs held by high-RWA individuals are a reflection of their religion and political leanings (Burge, 2018), with religious fundamentalists scoring highly on this orientation (Womick et al., 2022). It is believed that high-RWA churchgoers strongly advocate a traditional family structure (Altemeyer, 2007), and because this idea supports the belief that men are superior to women, it also lends itself to inceldom; this may explain why RWA was a significant predictor in this research. As the traditional family structure involves a man as the head of family and a woman as subservient to him, this structure aligns with incels'

belief that women should be subordinate to men and that a societal reversion to such traditional frameworks is needed.

Social Dominance Orientation

However, support for social hierarchies, such as men dominating over women, is also integral to SDO. High-SDO individuals have been shown to display greater prejudice against women and minorities, with high-SDO individuals viewing marginalized groups as weak or inferior (Bizer et al., 2012; Sibley et al., 2010). In the present research, SDO was a negative predictor of endorsement of incel ideology, an unexpected finding given the overlap between high-SDO individuals' preference for social hierarchies (Pratto, Sidanius et al., 1994) and some elements of the incel ideological framework (Daly & Reed, 2022).

In a previous study by Altemeyer (2004), individuals high on SDO admitted to striving to manipulate others and being dishonest, deceitful and amoral. However, incels possess a hatred for women and are not interested in manipulating them for their gain—especially if they endorse the 'blackpill' ideology. High-SDO individuals may therefore endorse a different set of beliefs to incels, which align more closely with those held by other members of the manosphere: Pick-Up Artists (PUAs). PUAs believe that they are able to manipulate women and circumstances to benefit themselves (Xia & Chen, 2021), using sexual coercion techniques to overcome "last minute resistance to sex" (Cosma & Gurevich, 2020, p. 54). Hence, it is possible that aspects of SDO may be attractive to these members of the manosphere.

Although they exist within the same online space, these communities differ. Incels who endorse the 'blackpilled' worldview have accepted defeat in their pursuit of romantic and sexual relationships with women, whereas PUAs believe they can manipulate women to meet their sexual desires (Ribeiro et al., 2020). Thus, while the endorsement of PUA viewpoints were not measured in this study, the unexpected finding for SDO may be explained by this orientation better aligning with the endorsement of PUA ideologies instead. To better elucidate differences in the factors underlying PUA and incel ideologies, future research should endeavor to explore the potential relationships between SDO and PUA ideologies.

Autistic and Narcissistic Traits

Study 2 revealed that autistic traits and narcissistic traits were negatively associated with incel traits, suggesting that having high levels of either of these traits does not render an individual more likely to display incel traits; indeed, the findings suggest that they make them *less* likely to possess incel traits. However, the results also showed that self-reported incels scored significantly *higher* on narcissistic traits than non-incels, and that the two groups did not differ in levels of autistic traits. These contradictory findings do not seem to reflect psychometric concerns with the Incel Traits Scale (Scaptura & Boyle, 2020), as incels scored significantly higher than non-incels on this measure. However, both the AQ-10 (Allison et al., 2012) and NPI-16 (Ames et al., 2006) showed poor

reliability in this research, with the NPI-16 barely reaching the threshold for an acceptable α level, and two items needing to be removed from the AQ-10 in order to achieve sufficient scale reliability. However, it is important to note that this is likely not a result of psychometric flaws of the instruments used, as previous studies have vouched for the validity and reliability of the NPI-16 (Gentile et al., 2013) and the AQ-10 (Booth et al., 2013) and their performance relative to their longer counterparts (the NPI-40 and AQ-50). Furthermore, there is a growing body of literature that indicates autistic traits may be significantly more prevalent among incels than the general population (Broyd et al., 2022; Costello et al., 2024; Helm et al., 2022; Speckhard & Ellenberg, 2022; Speckhard et al., 2021). Thus, perhaps these unexpected and disparate findings are a consequence of data integrity. In the present research, a prize draw incentive was offered for participation, and this may have led to issues with data quality (Peer et al., 2021), thereby eroding validity of the results.

Childhood Traumatic Experiences

The results of this research suggest that, while trauma may worsen the core symptoms of autism spectrum disorder (Fuld, 2018), it does not explain the relationship between autistic traits and incel traits. However, childhood trauma did explain the relationship between narcissistic traits and incel traits. These findings indicate that when childhood traumatic experiences are not a factor, individuals with higher levels of narcissistic traits are likely to show lower levels of incel traits, but when childhood

trauma is present, individuals with higher levels of narcissistic traits will score higher on incel traits. Thus, a combination of narcissistic personality traits and adverse childhood experiences may render someone more vulnerable to becoming radicalized towards inceldom. This pattern complements previous studies showing relationships between trauma and extremism (Barker & Riley, 2022; Gill et al., 2014; Koehler, 2020; LaFree et al., 2018).

Limitations

This research had some noteworthy limitations. First, it used convenience sampling, and may not be entirely representative of the general population. Furthermore, the prize draw incentive offered in Study 2 may have resulted in issues with poor data quality, as a large number of datapoints had to be excluded due to incomplete and poor-quality data. It is possible that some of the remaining participants also provided illegitimate responses, rendering it essential that the results of Study 2 be interpreted with caution. More research is needed to explore the relationships between inceldom and autistic and narcissistic traits. Meanwhile, due to time constraints during data collection, the sample for Study 1 was only sufficient powered to detect a large effect ($\eta_p^2 = 179$). Future research with larger samples would aid in strengthening our understanding of the observed effects.

Although there is support for the psychometric properties of the NPI-16 in the literature, it has also been suggested that the NPI-13 is

preferable to the NPI-16 due to its stronger convergent validity with the NPI-40 and 3-factor structure (Gentile et al., 2013). Future studies may therefore benefit from using the NPI-13 to measure narcissistic traits, as this may reveal important insights regarding the relationships between inceldom and the difference facets of narcissism.

Furthermore, due to the cross-sectional nature of this study, the results do not represent beliefs over time and how these may change. Evidence suggests that many individuals leave the incel community as they get older, often due to finding love in romantic relationships (Rawles, 2019). Thus, future research should longitudinally explore levels of inceldom through the lifespan to determine the critical age or life point at which levels of inceldom decrease. This will aid in targeting intervention efforts at those who are most at risk.

Finally, the questionnaire used to measure endorsement of incel ideology in Study 1 was adapted from a previous study (Speckhard et al., 2021) and has not been psychometrically validated. Cronbach's alpha analysis showed that the internal consistency of the scale was excellent, thus warranting its use in this study; however, the full validation of the scale would benefit the research community. Because inceldom has received increased attention and interest within academia and the media in recent years (Engholm, 2021), it is vital that an appropriately validated scale to measure endorsement of incel ideology is available for use in future empirical investigations. Relying solely on participants to self-report

identifying with the 'incel label' as a representation of a high degree of
endorsement of its associated ideology may be problematic due to the
varying beliefs of incels who are 'redpilled' vs those who are 'blackpilled',
despite all of them identifying with the incel label. The adapted scale used
in this study holds promise as a useful starting point for this endeavor.

Implications and Recommendations

This research has far-reaching implications. With counter-terrorism
frameworks being ill-equipped to address non-traditional threats (Leidig,
2021), the need for an incel-specific related program is palpable. The surge
of interest in incel forums highlights that more and more individuals are
familiarizing themselves with extreme ideas, but with nowhere to turn if
they feel the need for support. To our knowledge, Canada is currently the
only nation with a specific organization to support incels in leaving the
community (see Hastings et al., 2020, for information about this initiative).
Through better understanding, sufficient support systems could be put into
place, giving incels the help they require after being radicalized, or help
prevent their radicalization in the first place. Some individuals may
recognize that their views are extreme, but they may lack people to express
their concern to aside from the other radicalized members of the
manosphere communities. Consequently, the individual is not released of
their views, and may instead find themselves cultivating more harmful and
extreme beliefs or reinforcing the misogynistic beliefs they already hold.

It is therefore critical that tech companies such as Metaverse expand their moderation protocols to cover violent, misogynistic content, not only jihadist-related content (Guhl & Davey, 2020). In a mass shooting in Uvalde, Texas, the shooter sent direct messages on Facebook about his plan to shoot his grandmother, continuing to say he was going "to shoot an elementary school" (Nix & Lerman, 2022). Although the Uvalde School District had an artificial intelligence-backed program to scan social media posts for potential threats (Nix & Lerman, 2022), this left the responsibility to detect threats on individual organizations rather than tech conglomerates. These companies should use their wide reach to implement a blanket approach of highlighting and removing extremist posts. Furthermore, through empirical research, a better understanding of incels can be gained, and tech policies can be implemented to form a categorical, industry-standard way of tackling misogynistic posts, rather than the ad-hoc approach currently taken by individual platforms (Leidig, 2021). By having a company standard that can be mutually agreed upon, cross-platform posting behavior would be appropriately monitored and examined for harmful content.

In terms of existing prevention strategies, *Prevent* is a government-led program in the UK which aims to increase knowledge of the warning signs of radicalization and extremist behavior, while helping individuals leave the extremist community (Baker-Beall et al., 2014; HM Government, 2011). Although there are currently no systems in place to help incels

specifically, the principles of the *Prevent* program can be applied to this branch of extremism. *Prevent* has seen an increase in referrals for individuals under the 'mixed, unclear and unstable' category (Home Office, 2020), which includes inceldom; however, this program not specifically tailored to incels. The *Prevent* program aims to eliminate any 'ungoverned spaces' in which extremism is allowed to flourish without challenge and, where appropriate, by legal intervention. Clearly, this aspect of *Prevent*'s policy has not yet been implemented to all extremist communities, as incel forums are thriving (Young, 2019) and remain largely unregulated (Radicalisation Awareness Network, 2021).

Therapy is frequently discussed on incel forums (Speckhard et al., 2021), with incels theorizing it is unhelpful and a waste of money. Only a minority of incels reported having tried accessing therapy to help with their distressing emotions and extreme viewpoints (Speckhard et al., 2021). It is possible that the lack of understanding of the underpinnings of inceldom contributes to the perspective that therapeutic support would be fruitless, as it may result in those who do seek help being provided with ineffective support. By having a better understanding of inceldom, more tailored, effective interventions can be implemented, and current interventions can be improved. While only a minority of individuals from this large, radicalised community go on to commit violent attacks, there is growing concern around the availability of weapons to the general public, especially guns in the USA and knives in the UK (Squires, 2009; Williams & Squires,

2021). Thus, more needs to be done to understand this ideological stance and to combat the risk incels pose to women and to society in general.

Conclusion

Exposure to extreme views can have a profound psychological impact (Trip et al., 2019). When these views are perpetuated by the people one associates with in online (and, indeed, offline) spaces, some individuals may go on to commit violent attacks, as seen in such examples as Elliot Rodger and Jake Davison. With better understanding of the incel community and the characteristics that underpin a vulnerability to this type of radicalization, processes can be put in place to ensure incel-motivated attacks decline. To date, there are no charities or organizations that provide support for members of the incel community specifically. The attributes explored in this research are found throughout society, not only within the incel community; it is therefore crucial that incel ideology is given more attention in empirical research to determine the best ways to support the deradicalization of individuals in the manosphere and the incel community.

References

Allely, C. S., & Faccini, L. (2017). "Path to intended violence" model to understand   mass violence in the case of Elliot Rodger.

Aggression and Violent Behavior, 37, 201-   209.

https://doi.org/10.1016/j.avb.2017.09.005

Allison, C., Auyeung, B., & Baron-Cohen, S. (2012). Toward brief "red flags"

for autism   screening: the short autism spectrum quotient and the short

quantitative checklist in 1,000   cases and 3,000 controls. *Journal of the*

American Academy of Child & Adolescent   *Psychiatry, 51*(2), 202-212.

https://doi.org/10.1016/j.jaac.2011.11.003

Altemeyer, B. (1981). *Right-wing authoritarianism.* University of Manitoba

Press.

Altemeyer, B. (2004). Highly dominating, highly authoritarian personalities.

The Journal of   Social Psychology,144(4), 421-448.

https://doi.org/10.3200/socp.144.4.421-448

Altemeyer, B. (2007). *The authoritarians.* Winnipeg: B. Altemeyer.

Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short

measure of narcissism.   *Journal of Research in Personality, 40*(4), 440–

450. https://doi.org/10.1016/j.jrp.2005.03.002

Austin, D. E. J., & Jackson, M. (2019). Benevolent and hostile sexism

differentially predicted by facets of right-wing authoritarianism and social

dominance orientation. *Personality   and Individual Differences, 139*,

34-38. https://doi.org/10.1016/j.paid.2018.11.002

Avery, P. G. (1988). Political tolerance among adolescents. *Theory &*

Research in Social   Education, 16(3), 183-201.

https://doi.org/10.1080/00933104.1988.10505564

Baker-Beall, C., Heath-Kelly, C., & Jarvis, L. (2014). Counter-radicalisation. Taylor &   Francis. https://doi.org/10.4324/9781315773094

Barker, E. D., & Riley, H. (2022, July 19). The role of trauma and mental health in violent   extremism. *Briefing Note: XCEPT-Cross-Border Conlict, Evidence, Policy, Trends.*   https://www.xcept-research.org/wp-content/uploads/2022/07/2022-07- 19_FINAL_Briefing-note-Trauma-Jul19.pdf

Baron-Cohen, S., Wheelwright, S., Skinner, R., Martin, J., & Clubley, E. (2001). The autism-   spectrum quotient (AQ): Evidence from asperger syndrome/high-functioning autism,   males and females, scientists and mathematicians. *Journal of Autism and Developmental   Disorders, 31*(1), 5-17. https://doi.org/10.1023/A:1005653411471

Baron, S. W., & Forde, D. R. (2020). Childhood trauma, criminogenic social schemas, and   violent crime. *Deviant Behavior, 41*, 991-1004. https://doi.org/10.1080/01639625.2019.1596534

Baselice, K. A. (2024). Analyzing Incels through the lens of evolutionary psychology. *Culture   and Evolution, 20*(1), 42-58. https://doi.org/10.1556/2055.2022.00016

Bizer, G. Y., Hart, J., & Jekogian, A. M. (2012). Belief in a just world and social dominance   orientation: Evidence for a mediational pathway predicting negative attitudes and   discrimination against individuals with mental illness. *Personality and Individual   Differences, 52*(3), 428-432. https://doi.org/10.1016/j.paid.2011.11.002

Blake, K. R., O'Dean, S. M., Lian, J., & Denson, T. F. (2021). Misogynistic tweets correlate with violence against women. *Psychological Science, 32*(3), 315-325.   https://doi.org/10.1177/09567976209668529

Bloom, M. M. (2022). The first incel? The legacy of Marc Lépine. *The Journal of Intelligence, Conflict, and Warfare, 5*(1), 39-74. https://doi.org/10.21810/jicw.v5i1.4214

Booth, T., Murray, A. L., McKenzie, K., Kuenssberg, R., O'Donnell, M., & Burnett, H. (2013).   Brief report: An evaluation of the AQ-10 as a brief screening instrument for ASD in   adults. *Journal of Autism and Developmental Disorders, 43*(2013), 2997-3000.
   https://doi.org/10.1007/s10803-013-1844-5

Brown, A. D. (1997). Narcissism, identity, and legitimacy. *Academy of Management Review,   22*(3), 643-686. https://doi.org/10.5465/amr.1997.9708210722

Broyd, J., Boniface, L., Parsons, D., Murphy, D., & Hafferty, J. D. (2022). Incels, violence and   mental disorder: A narrative review with recommendations for best practice in risk   assessment and clinical intervention. *BJPsych Advances, 29*(4), 254-264.
   https://doi.org/10.1192/bja.2022.15

Burge, R. P. (2018). Authority, authoritarianism, and religion. In *Oxford Research   Encyclopedia of Politics*. https://doi.org/10.1093/acrefore/9780190228637.013.667

CASIS-Vancouver. (2021). The anti-women movement: Incels, misogyny and the threat to   the west coast. *The Journal of Intelligence, Conflict, and Warfare, 2*(2), 67-79.   https://doi.org/10.21810/jicw.v2i2.1057

Colleoni, E., Rozza, A., & Arvidsson, A. (2014). Echo chamber or public sphere? Predicting   political orientation and measuring political homophily in Twitter using big data.   *Journal of Communication, 64*(2), 317-332. https://doi.org/10.1111/jcom.12084

Cosma, S., & Gurevich, M. (2020). Securing sex: Embattled masculinity and the pressured   pursuit of women's bodies in men's online sex advice. *Feminism & Psychology, 30*(1),   42-62. https://doi.org/10.1177/0959353519857754

Costello, W., Whittaker, J., & Thomas, A. G. (2024). *Predicting harmful attitudes and beliefs   among incels (involuntary celibates): How potent is the black-pill?* OSFpreprints.   https://doi.org/10.31219/osf.io/avhnf

Cottee, S. (2021). Incel (e)motives: Resentment, shame and revenge. *Studies in Conflict &   Terrorism, 44*(2), 93-114. https://doi.org/10.1080/1057610X.2020.1822589

Cotterill, S., Sidanius, J., Bhardwaj, A., & Kumar, V. (2014). Ideological support for the Indian   caste system: Social dominance orientation, right-wing authoritarianism and karma. *Journal of Social and Political Psychology, 2*(1), 98-116.   https://doi.org/10.5964/jspp.v2i1.171

Dalsklev, M., Cunningham, T., Dempster, M., & Hanna, D. (2019). Childhood physical and   sexual abuse as a predictor of reoffending: A

systematic review. *Trauma, Violence, & Abuse, 22*(3), 605-618.

https://doi.org/10.1177/1524838019869082

Daly, S. E., & Reed, S. R. (2022). "I think society hates us": A qualitative

thematic analysis   of interviews with incels. *Sex Roles, 86*(1-2), 14-33.

https://doi.org/10.1007/s11199-   021-01250-5

de Roos, M. S., Veldhuizen-Ochodničanová, L., & Hanna, A. (2024). The

angry echo chamber: A study of extremist and emotional language changes

in incel communities   over time. *Journal of Interpersonal Violence, 0*(0).

https://doi.org/10.1177/08862605241239451

Demetriou, D. (2022). Virgin versus Chad: On enforced monogamy as a

solution to the incel   problem. In D. Boonin (Ed.), *The Palgrave Handbook

of Sexual Ethics* (pp. 155-175).   Palgrave Macmillan.

Díaz, P. C., & Valji, N. (2019). Symbiosis of misogyny and violent extremism.

Journal of International Affairs, 72(2), 37-56.

Duckitt, J., & Sibley, C. G. (2007). Right wing authoritarianism, social

dominance orientation and the dimensions of generalized prejudice.

European Journal of   Personality, 21(2), 113-130.

https://doi.org/10.1002/per.614

Engholm, H. (2021). *The lack of looks: A study on the Incel ideology of

Incelism during the   2010s–2020s and its relation to historical and

contemporary ideologies particularly   within far-right milieus* [Master's

thesis, Uppsala University].

Farrell, T., Fernandez, M., Novotny, J., & Alani, H. (2019, June 26).

Exploring misogyny   across the manosphere in Reddit. In *Proceedings of*

the 10th ACM Conference on Web Science (pp. 87-96).

https://doi.org/10.1145/3292522.3326045

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A

flexible statistical   power analysis program for the social, behavioral,

and biomedical sciences. *Behavior Research Methods, 39*, 175-191.

https://doi.org/10.3758/bf03193146

Gentile, B., Miller, J. D., Hoffman, B. J., Reidy, D. E., Zeichner, A., &

Campbell, W. K. (2013).   A test of two brief measures of grandiose

narcissism: The Narcissistic Personality   Inventory-13 and the Narcissistic

Personality Inventory-16. *Psychological Assessment, 25*(4), 1120-1136.

https://doi.org/10.1037/a0033192

Gill, P., Horgan, J., & Deckert, P. (2014). Bombing alone: Tracing the

motivations and   antecedent behaviors of lone-actor terrorists.

Journal of Forensic Sciences, 59(2), 425- 435. https://doi.org/10.1111/1556-

4029.12312

Grella, C. E., Stein, J. A., & Greenwell, L. (2005). Associations among

childhood trauma,   adolescent problem behaviors, and adverse adult

outcomes in substance-abusing women   offenders. *Psychology of Addictive*

Behaviors, 19(1), 43-53.   https://doi.org/10.1037/0893-164X.19.1.43

Grubbs, J. B., Exline, J. J., & Twenge, J. M. (2014). Psychological entitlement

and   ambivalent sexism: Understanding the role of entitlement in

predicting two forms of   sexism. *Sex Roles, 70*(5-6), 209–220.

https://doi.org/10.1007/s11199-014-0360-1

Guhl, J., & Davey, J. (2020). A safe space to hate: White supremacist

mobilisation on   telegram. *Institute for Strategic Dialogue*, 1-20.

https://www.isdglobal.org/wp-   content/uploads/2020/06/A-Safe-Space-

to-Hate.pdf

Gul, P., Kupfer, T., Grunau, K., & Bieselt, H. E. (2022). *Unwanted celibacy is*

associated with misogynistic attitudes even after controlling for

personality. Psyarxiv.   https://psyarxiv.com/qv4a9/

Habib, H., Srinivasan, P., & Nithyanand, R. (2022). *Making a radical*

misogynist: How online   social engagement with the Manosphere

influences traits of radicalization. arXiv. https://arxiv.org/abs/2202.08805.

Hansmeyer, A. E. (2021). *Novel explanations for misogynistic attitudes in*

society-social   loneliness as a moderator in misogyny [Unpublished

bachelor's thesis]. University of   Twente.

Hastings, Z., Jones, D., & Stolte, L. (2020). *Involuntary celibates:*

Background for   practitioners. Organization for the Prevention of Violence.

        https://preventviolence.ca/publication/incels-background-for-

practitioners/

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional*

process analysis: A   regression-based approach (3rd ed.). Guilford Press.

Helm, B., Scrivens, R., Holt, T. J., Chermak, S., & Frank, R. (2022).

Examining incel subculture   on Reddit. *Journal of Crime and Justice, 47*(1),

27-45.   https://doi.org/10.1080/0735648X.2022.2074867

HM Government. (2011). *Prevent strategy*.

https://assets.publishing.service.gov.uk/government/uploads/system/

uploads/attachme   nt_data/file/97976/prevent-strategy-review.pdf

Hoffman, B., Ware, J., & Shapiro, E. (2020). Assessing the threat of incel

violence. *Studies in   Conflict & Terrorism, 43*(7), 565-587.

https://doi.org/10.1080/1057610x.2020.1751459

Home Office. (2020). Individuals referred to and supported through the

Prevent programme: England and Wales, April 2019 to March 2020.

https://assets.publishing.service.gov.uk/government/uploads/system/

uploads/attachme   nt_data/file/938755/individuals-referred-supported-

prevent-programme-apr2019-   mar2020-hosb3620.pdf

Jaki, S., De Smedt, T., Gwóźdź, M., Panchal, R., Rossa, A., & De Pauw, G.

(2019). Online   hatred of women in the Incels. me forum: Linguistic

analysis and automatic detection. *Journal of Language Aggression and

Conflict, 7*(2), 240-268.   https://doi.org/10.1075/jlac.00026.jak

Jasko, K., LaFree, G., & Kruglanski, A. (2016). Quest for significance and

violent extremism: The case of domestic radicalization. *Political

Psychology, 38*(5), 815–831. Portico.   https://doi.org/10.1111/pops.12376

Johnston, M., & True, J. (2019). *Misogyny & violent extremism: implications

for preventing   violent extremism*. UN Women.

https://asiapacific.unwomen.org/en/digital-

library/publications/2019/10/misogyny-violent-extremism

Jones, C., Trott, V., & Wright, S. (2020). Sluts and soyboys: MGTOW and the

production of   misogynistic online harassment. *New Media & Society,*

22(10), 1903-1921.   https://doi.org/10.1177/1461444819887141

Kloosterman, P. H., Kelley, E. A., Craig, W. M., Parker, J. D. A., & Javier, C.

(2013). Types and   experiences of bullying in adolescents with an

autism spectrum disorder. *Research in   Autism Spectrum Disorders, 7*(7),

824–832. https://doi.org/10.1016/j.rasd.2013.02.013

Koehler, D. (2020). Violent extremism, mental health and substance abuse

among adolescents: Towards a trauma psychological perspective on

violent radicalization and   deradicalization. *Journal of Forensic*

Psychiatry & Psychology, 31(3), 455-472.

    https://doi.org/10.1080/14789949.2020.1758752

Konutgan, S. (2020). *To what extent are Incels' misogynistic and violent*

attitudes towards   women are driven by their unsatisfied mating needs

and entitlement to sex?   [Unpublished Bachelor's thesis]. University of

Twente.

Lachowicz-Tabaczek, K., Lewandowska, B., Kochan-Wójcik, M.,

Andrzejewska, B. E., & Juszkiewicz, A. (2021). Grandiose and vulnerable

narcissism as predictors of the   tendency to objectify other people.

Current Psychology, 40(11), 5637–5647. https://doi.org/10.1007/s12144-

019-00569-3

LaFree, G., Jensen, M. A., James, P. A., & Safer-Lichtenstein, A. (2018).

Correlates of violent   political extremism in the United States.

Criminology, 56(2), 233-268. https://doi.org/10.1111/1745-9125.12169

Langman, P. (2009). Rampage school shooters: A typology. *Aggression and Violent Behavior,   14*(1), 79–86. https://doi.org/10.1016/j.avb.2008.10.003

Leidig, E. (2021). *Why terrorism studies miss the mark when it comes to incels*. International   Centre for Counter-Terrorism. https://icct.nl/publication/why-terrorism-studies-miss-   the-mark-when-it-comes-to-incels/

Li, H. (2023). Relationship between childhood traumas and criminal behaviors. *Lecture Notes in   Education Psychology and Public Media, 9*(14), 256-261. https://doi.org/10.54254/2753- 7048/9/20230199

Likitha, S., & Mishra, K. (2021). A review on relationship of childhood trauma with   offending behaviour. *Mind and Society, 10*(01-02), 15-21. https://doi.org/10.56011/mind-   mri-101-2-20212

Mathieu, C., & St-Jean, É. (2013). Entrepreneurial personality: The role of narcissism.   *Personality and Individual Differences, 55*(5), 527-531.   https://doi.org/10.1016/j.paid.2013.04.026

Maxwell, D., Robinson, S. R., Williams, J. R., & Keaton, C. (2020). "A short story of a lonely   guy": A qualitative thematic analysis of involuntary celibacy using Reddit.   *Sexuality & Culture, 24*(6), 1852-1874. https://doi.org/10.1007/s12119-020-09724-6

Morssinkhof, M. (2021). *Novel explanations for misogynistic attitudes in society: A   relational examination using psychological factors extracted*

from incel communities   [Unpublished bachelor's thesis]. University of Twente.

Nix, N., & Lerman, R. (2022, May 22). *Facebook says Texas gunman sent direct messages before the shooting*. Washington Post. https://www.washingtonpost.com/technology/2022/05/25/texas-school-shooting-   gunman-facebook-messages-uvalde/

Nuske, H. J., Vivanti, G., & Dissanayake, C. (2013). Are emotion impairments unique to,   universal, or specific in autism spectrum disorder? A comprehensive review. *Cognition and Emotion, 27*(6), 1042– 1061. https://doi.org/10.1080/02699931.2012.762900

Palma, S. (2019). Entitled to a happy ending: Fairy-tale logic from "Beauty and the Beast" to the   incel movement. *Marvels & Tales, 33*(2), 319. https://doi.org/10.13110/marvelstales.33.2.0319

Peer, E., Rothschild, D., Gordon, A., Evernden, Z., & Damer, E. (2021). Data quality of   platforms and panels for online behavioral research. *Behavior Research Methods,   54*(2022), 1643-1662. https://doi.org/10.3758/s13428-021-01694-3

Pennebaker, J. W., & Susman, J. R. (2013). Childhood Trauma Questionnaire. *Measurement   Instrument Database for the Social Science*. https://cathybrownstonemft.com/wp-content/uploads/2020/10/Childhood-Trauma-Questionnaire.pdf

Perliger, A., Stevens, C., & Leidig, E. (2022). *Mapping the ideological landscape of extreme   misogyny*. International Centre for Counter-

Terrorism.

https://static1.squarespace.com/static/5b7ea2794cde7a79e7c00582/t/

6483da110d714804e___5d57279/1686362641577/mapping-ideological.pdf

Pratto, F., Lee, I., Tan, J., & Pitpitan, E. (2011). Power Basis Theory: A

psycho-ecologicalapproach to power. In D. Dunning (Ed.), *Social motivation*

(pp. 191-222). Psychology   Press.

Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social

dominance orientation: A personality variable predicting social and political

attitudes. *Journal of   Personality and Social Psychology, 67*(4), 741-763.

https://doi.org/10.1037/0022-3514.67.4.741

Radicalisation Awareness Network. (2021). *Conclusion paper: Violent incels*

and challenges   for P/CVE.

https://home-affairs.ec.europa.eu/system/files/2021-04/ran_small-

scale_violent_incels_and_challenges_for_p-cve_25022021_en.pdf

Rawles, S. (Director). (2019, September 17). *Inside the secret world of*

incels   [documentary]. BBC Three.

https://www.bbc.co.uk/programmes/p07fvhmw

Ribeiro, M. H., Blackburn, J., Bradlyn, B., De Cristofaro, E., Stringhini, G.,

Long, S.,   Greenberg, S., & Zannettou, S. (2020). *From pick-up artists to*

incels: a data-driven   sketch of the manosphere. arXiv.

https://arxiv.org/abs/2001.07600

Rottweiler, B., & Gill, P. (2021). *Measuring individuals' misogynistic attitudes: Development   and validation of the Misogyny Scale.* PsyArXiv. https://psyarxiv.com/6f829/

Scanlon, F., Schatz, D., Scheidell, J. D., Cuddeback, G. S., Frueh, B. C., & Khan, M. R. (2019).   National study of childhood traumatic events and adolescent and adult criminal justice   involvement risk: Evaluating the protective role of social support from mentors during   adolescence. *The Journal of Clinical Psychiatry, 80*(5).

   https://doi.org/10.4088/JCP.18m12347

Scaptura, M. N., & Boyle, K. M. (2020). Masculinity threat, "incel" traits, and violent fantasies among heterosexual men in the United States. *Feminist Criminology, 15*(3), 278-298. https://doi.org/10.1177/1557085119896415

Sibley, C. G., Harding, J. F., Perry, R., Asbrock, F., & Duckitt, J. (2010). Personality and   prejudice: extension to the HEXACO personality model, *European Journal of   Personality, 24*(6), 515-534. https://doi.org/10.1002/per.750

Sidanius, J., & Pratto, F. (1993). The inevitability of oppression and the dynamics of social   dominance. In P. Sniderman & P. E. Tetlock (Eds.), *Prejudice, politics, and the   America dilemma* (pp. 87-103). Stanford University Press.

Speckhard, A., & Ellenberg, M. (2022). Self-reported psychiatric disorder and perceived   psychological symptom rates among involuntary

celibates (incels) and their   perceptions of mental health

treatment. *Behavioral Sciences of Terrorism and   Political*

Aggression, 1-18. https://doi.org/10.1080/19434472.2022.2029933

Speckhard, A., Ellenberg, M., Morton, J., & Ash, A. (2021). Involuntary

celibates' experiences of and grievance over sexual exclusion and the

potential threat of   violence among those active in an online incel

forum. *Journal of Strategic Security,   14*(2), 89-121.

https://doi.org/10.5038/1944-0472.14.2.1910

Squires, P. (2009). The knife crime 'epidemic' and British politics. *British*

Politics, 4(1), 127-   157. https://doi.org/10.1057/bp.2008.40

Suler, J. (2004). The online disinhibition effect. *CyberPsychology &*

Behavior, 7(3), 321-326.   https://doi.org/10.1089/1094931041291295

Tomkinson, S., Harper, T., & Attwell, K. (2020). Confronting incel: Exploring

possible policy   responses to misogynistic violent extremism. *Australian*

Journal of Political Science,   55(2), 152-169.

https://doi.org/10.1080/10361146.2020.1747393

Townsend, M. (2022, October 22). Experts fear rising global 'incel' culture

could provoke   terrorism. *The Guardian.*

https://www.theguardian.com/society/2022/oct/30/global-incel-   culture-
terrorism-misogyny-violent-action-forums

Trip, S., Bora, C. H., Marian, M., Halmajan, A., & Drugas, M. I. (2019).

Psychological   mechanisms involved in radicalization and extremism. A

rational emotive behavioral   conceptualization. *Frontiers in Psychology, 10*,

437. https://doi.org/10.3389/fpsyg.2019.00437

Centre for Countering Digital Hate. (2022, September 23). The

Incelosphere: Exposing pathways   into incel communities and the harms

they pose to women and children.

https://counterhate.com/research/incelosphere/

Waśniewska, M. (2020). The red pill, unicorns and white knights: Cultural

symbolism and   conceptual metaphor in the slang of online incel

communities. In B. Lewandowska- Tomaszcyk (Ed.), *Cultural

Conceptualizations in Language and Communication* (pp.   65-82). Springer.

Williams, D. J., & Arntfield, M. (2020). Extreme sex-negativity: An

examination of   helplessness, hopelessness, and misattribution of blame

among "incel" multiple   homicide offenders. *Journal of Positive

Sexuality, 6*(1), 33-42. https://doi.org/10.51681/1.613

Williams, E., & Squires, P. (2021). *Rethinking knife crime: Policing, violence

and moral   panic?*   Palgrave Macmillan.

Womick, J., Woody, B., & King, L. A. (2022). Religious fundamentalism,

right-wing authoritarianism, and meaning in life. *Journal of Personality,

90*(2), 277-293.   https://doi.org/10.1111/jopy.12665

Woodbury-Smith, M. R., Loftin, R., Westphal, A., & Volkmar, F. R. (2022).

Vulnerability to   ideologically-motivated violence among individuals with

Autism Spectrum Disorder.   *Frontiers in Psychiatry, 13*.

https://doi.org/10.3389/fpsyt.2022.873121

Xia, S., & Chen, T. (2021). Attribution of responsibility for pick up artist

issues in China: The impacts of journalist gender, geographical location,

and publication range. *Journal of Communication Inquiry, 46*(2), 138-160.

   https://doi.org/10.1177/01968599211041118

Young, O. (2019). *What role has social media played in violence perpetrated*

by incels?   [Unpublished bachelor's dissertation]. Digital Commons.

   https://digitalcommons.chapman.edu/cgi/viewcontent.cgi?

article=1000&context=peac e_studies_student_work