Mating Preferences of Women as Perceived by Incels

Aylin Ünes

s1875701

1st Supervisor: Dr. Pelin Gül

2nd Supervisor: Dr. Noortje Kloos

University of Twente

Abstract

Aims: The aim of the research was to investigate whether there are differences between incel-men and non-incel-men regarding their perception of women's mating preferences. It was expected that incel-men compared to non-incel-men rank physical attractiveness higher regarding the mating preferences of women, whereas non-incel-men compared to incel-men rank interpersonal warmth higher regarding the mating preferences of women.

Methods: This research was part of a larger study and distributed in the form of an online survey. The data was collected by opportunity and convenience sampling and included platforms such as SONA, Facebook, Instagram, online forums and incel forums. The final sample that was used in this study consisted of self-identified incel men, incel-men identified by the researchers and non-incel-men. The perception of incel-men and non-incel-men regarding the mating preferences of women was measured on the three dimensions physical attractiveness, social status and interpersonal warmth. Subsequently, the data was analysed using descriptive and inferential statistics.

Results: The results demonstrated that there was a difference between incel-men and non-incel-men regarding their perception of women's mating preferences. Self-identified incel-men compared to non-incel-men scored significantly higher on physical attractiveness as a presumed mating preference of women and self-identified non-incel-men were significantly more likely to presume that women's preferences were related to interpersonal warmth. Furthermore, the same results were found for researcher-identified incel-men and non-incel-men for interpersonal warmth, but not for physical attractiveness.

Conclusion: It is advisable that future researchers focus on gaining access into the closed incel communities in order to target a larger range of incels. The majority of participants in this study did not self-identify as incels and needed to be identified by the researcher as such, in order to increase the small sample size. Due to the small sample size researcher-identified incels had to be added to this study. However, this method cannot ensure that the researcher identified incels are indeed qualified to be characterized as incels. Hence, it can be recommended to only use the sample of self-identified incels.

In April 2018 the 25-year-old Alek Minaissin killed 10 individuals with his van in Toronto. Before he executed his assault he mentioned on Facebook, that the incel rebellion had started and referred to the offender Elliot Rodger. The 22-year-old Elliot Rodger had formerly stabbed 6 individuals with a knife before he committed suicide and shed light on the once concealed incel community. Rodger wrote a manifesto with the title "My Twisted World" prior to his assault in which he expressed his frustration towards women because he felt rejected by them. He justified his attacks by stating that they were necessary, because women were not able to see his value and did not notice him (Høiland, 2019). Minaissin and Rodgers are two extreme examples that acted in the name of the incel community. Nevertheless, it does not imply that all members of the community share the same beliefs as the perpetrators. In order to gain deeper insights in their belief system and potentially prevent future attacks, it is crucial to investigate incels and their ideology in general.

According to Young (2019), an incel can be defined as an involuntary celibate who is unable to find a partner. Essential about this community is an increased use of violent and misogynous language to express anger and hate about the inability to form sexual relationships (Labbaf, 2019). The messages that are shared in the incel communities are often hostile, intimidating and include insults directed towards women (Turnage, 2007). This hate towards women stems from their belief that they are entitled to have sex and women deny them the right to be sexually active by rejecting them (Young, 2019). The online platforms that are often used by incels are Reddit, 4Chan, 8Chan and Twitter, where it is possible to interact anonymously with each other, allowing the dispersion of unfiltered thoughts and their belief system (Labbaf, 2019).

The belief system of incels consists of different notions that primarily focus on the relationship between men and women. Incels believe that feminism is influencing this relationship, especially by changing the mating preferences of women (Jones, 2020). They assume that the freedom women have after emancipation is leading them to choose men that are physically attractive and high in the social hierarchy (Ging, 2019). The belief that women focus more on physical attributes instead of other aspects such as personality, character and intelligence when looking for a mate, sets the focus on physical appearance in incel communities

(Young, 2019). Since incels perceive themselves as physically undesirable, they feel excluded by women and their mating decision (Sargoza, 2020). Incels believe that they are at the bottom of the mating hierarchy and need to adapt themselves in order to attract women. Moreover, they believe that they are not able to match the stereotypical ideal of men, which is described as physically fit, athletic and therefore able to attract many women (Labbaf, 2019). Further, incels think that women value traits such as muscular body types, robust faces, deep voices and density of facial hair (Puts, Jones & Debruine, 2012). Subsequently, solutions that are proposed in the incel community for incel-men in order to find a mate are improving the physical appearance or increasing the income (Collins, 2018). According to Jones (2020), incels think that a high financial income is the only possibility to compensate for an unattractive appearance. Incels strongly believe that physical appearance is a crucial factor when it comes to dating. Therefore, they collectively discuss their physical features, such as height, weight, or neck size and use their perceived deficiencies as justification for the refusal of women to date them (Labbaf, 2019).

However, incels do not only discuss their perception of women's mating preferences in their communities, but also the mannerism that women exhibit to find an adequate mate. Incels think that women engage in hypergamy (Waśniewska, 2020). The term hypergamy implies that women have the urge to marry and date the most desirable men by using branch-swinging. Branch-swinging means that women keep all their dating opportunities open and have a hold on the next relationship with a desired man before exiting the previous one (Waśniewska, 2020). Incels ascribe this behaviour to the pickiness of women when they search for a mate, whereby physical attractiveness is perceived as the decisive criterion of the selection process (Jones, 2020).

The notion that incels think that they are only rejected by women based on their physical appearance was the reason to gain more insight into the perception of incels regarding the mating preferences of women. Since incels are sharing a common belief system with other incels, it is interesting to investigate if they differ from males that are non-incels and how they perceive the dating behaviour of women. This might be helpful to understand the perception of incels and to tailor matching interventions to their needs regarding the interaction with women. Challenging and debunking the belief system of incels regarding the mating preferences of women might

result in a change of mind which can be beneficial for incels and the society. Incels could benefit from the information that there are more factors that women take into consideration when they look for a mate. Furthermore, the comparison between incel-men and non-incel-men, might give an indication about whether the notion that women only focus on physical attractiveness while dating, is only occurring in the incel community or is a common belief men share.

The mating preferences of women

Before focusing on the differences between incels and non-incel-men, it is important to take women's mating preferences into consideration. Their point of view might give an indication whether the information that is given by incels is coherent with women's mating preferences. According to Buss and Barnes (1986), women do not only focus on physical attractiveness, but appreciate characteristics such as kindness, dependability and honesty in a marriage partner. Also, women do not only desire those traits when they intend to marry another individual, but also when they seek a sexual partner (Buss and Barnes, 1986). Regan and Berscheid (1997) demonstrated in their study, that women prefer sensitivity, trustworthiness and honesty more than other characteristics in a mate.

Furthermore, the notion that women engage in hypergamy and want to date up in order to mate with the most desired is not aligning with the preferences of women. Gangestad and Simpson (2000) coined the term assortative mating, which is based on the worth and the value that one desires in their mate and asserts to oneself. The term emphasizes the notion that individuals prefer being in a long-term relationship with others that have approximately the same mate value. Hence, the notion that all women engage in hypergamy is not covered by research.

Considering the opinion of incels regarding the mating preferences of women, it does not seem to align with the actual desires of women. Nevertheless, it does not imply that other men support the belief system of incels. Thus, there is still the necessity to investigate what non-incel-men think about the dating preferences of women.

Perception of non-incel-men regarding the mating preferences of women

Focusing on information about the perception of non-incel-men regarding the dating preferences of women, certain differences between non-incel-men and incel-men can be

depicted. Incels have a clear perception regarding the mating preferences of women, whereas non-incel-men express uncertainty about the characteristics women desire in a partner.

In general, men feel pressured to exhibit different roles in order to find a partner (Sinus Sociovision, 2007). Sinus Sociovision (2007) presented different roles that non-incel-men perceived as crucial in a relationship. Those roles were the understanding partner, the macho, the caring father and the career oriented individual. Nevertheless, non-incel-men assume that representing all those roles is not a guarantee to be successful while dating. The men in this study believe that women do not necessarily need men anymore and have increased requirements regarding their partner (Sinus Sociovision, 2007).

According to Sinus Sociovision (2007), men assume that women decide which role a man should take and expect them to fulfil the given function. Due to this perspective, men state to feel defensive and struggle with their mental state. They report to generally feel unsure about the way they should act and which role is the best in order to find a mate (Sinus Sociovision, 2007). Nevertheless, compared to incels, it is prominent that they do not only focus on the role of a physically desirable partner but also include characteristics such as being understanding and caring.

Thus, according to previous research about the perception of incel-men and non-incel-men regarding the mating behaviour of women, certain predictions can be made. It is assumed that incel-men believe that women value physical attractiveness the most when looking for a mate. The importance of physical attractiveness appears to be more important than other traits, because it is discussed the most and repeatedly mentioned as a reason for the failure of incels to find a mate (Labbaf, 2019). Also, the extent to which this topic is discussed by incels and the intense focus on physical attractiveness as a necessary contributor to find a mate, results in another prediction. It can be predicted that incel-men compared to non-incel-men rank physical attractiveness higher regarding women's mating preferences. Simultaneously, factors like interpersonal warmth are neglected in the incel community which leads to the assumption that incel-men compared to non-incel-men think that women value interpersonal warmth less in their mating preferences.

The current research

        The current research investigates the perception of incel-men regarding the mating preferences of women and especially whether they believe that women only focus on physical attractiveness. Hence, the research question is formulated as follows: "Do incel-men compared to non-incel-men believe that women value physical attractiveness more in a partner?".
In addition, there is not only the emphasis on the perception of incel-men, but also the difference between incel-men and non-incel-men.

        The research in this field is necessary in order to study this widely unexplored group and prevent incidents such as the assault executed by Elliot Rodger. Incels do not only officiate as a threat to society but also themselves, thus more information about them might lead to interventions that debunk their politically incorrect beliefs and motivate them to change their restricted stance towards women.

Based on the given information, following hypotheses are formulated:

Hypothesis 1: Incel-men compared to non-incel-men are expected to rate physical attractiveness higher regarding the mating preferences of women.

Hypothesis 2: Incel-men compared to non-incel-men are expected to rate interpersonal warmth lower regarding the mating preferences of women.

Methods

Participants

        The sample consisted of 204 participants and included 124 females, 77 males and 3 identifying as other. Further, the age of the participants ranged between 18 and 65 years with a mean age of 26.71 and standard deviation of 8.8. Moreover, 22.1% of the participants were from the United States, 23.7% from Germany and 23.7% from the Netherlands.

        For this research, minors and participants, who did not fill in this survey, were excluded. Overall, 107 participants were removed due to this criterion. Moreover, participants not identifying themselves as male were removed. Thus, additionally 127 participants were removed.

The final sample that was used for this study consisted of 77 male participants. Within this sample, 60 men identified themselves as non-incels and 17 as incels.

Table 1

Demographic Characteristics of the Participants (N=77)

Variables		Frequency	%
Nationality			
	German	18	23.4
	Dutch	18	23.4
	US-Americans	17	22.1
	Other	23	31.1
Ethnicity			
	White	68	88.3
	Black	2	2.6
	Other	6	7.8
Education			
	Less than high-school	1	1.3
	High-school graduate	34	44.2
	College graduate	12	15.6
	Undergraduate degree	25	32.5
	Master's degree	5	6.5
Employment status			
	Student	43	55.8
	Employed Full-time	16	20.8
	Employed Part-time	4	5.2
	Unemployed	8	10.4

	Other	6	7.8
Socio-economic status			
	Rather Poor	11	27,3
	Middle class	52	67.5
	Rather Wealthy	4	5.2
Sexual Orientation			
	Heterosexual	65	84.4
	Homosexual	3	3.9
	Bisexual	7	9.1
	Other	2	2.6
Relationship Status			
	Not dating	40	51.9
	Casually dating	6	7.8
	Exclusively dating	16	20.8
	Living together/engaged/married	15	19.5

Procedure

This research is a quasi-experimental study and the data collection took around five weeks. The data was collected through opportunity and convenience sampling and included platforms such as SONA, Facebook, Instagram, online forums and incel forums. Forums that were used to gather participants were mainly Reddit.com, Incels.net, Incels.co and Discordapp.com. Every participant who indicated an email could join a lottery and win a 50€ Amazon voucher.

The topic that was presented to the individuals was perceived motives, attitude and preferences in relationships. In the beginning of the survey, the participants were asked to read and agree to the informed consent in order to start the research. The informed consent can be found in Appendix A. It was mentioned that the participation in the survey was voluntary and that participants could drop out of the study at any time. Furthemore, it was highlighted that the data is handled confidentially. After the informed consent, the questions about the demographics, degree of inceldom and mating preferences were presented. Depending on the gender of the individual, they were assigned different questions regarding mating preferences. After finishing the survey the participants were debriefed and the whole background of the research revealed, namely the investigation of one's involuntary celibacy related to the individual's personality, motives and especially the attitudes towards interpersonal relationships between men and women. The debriefing is shown in Appendix B.

Materials

The survey was created with Qualtrics and was part of another project investigating the motives and mental health traits of incels. In this survey, different measurements were included that are not all necessary for this particular research. For this study only the questions about the demographics, degree of inceldom and the mating preferences were used.

Demographics. In order to measure the demographics, nine questions were presented measuring the age, sex, country of birth, ethnicity, sexual orientation, level of education, employment status, socioeconomic status and the current relationship status of the participants.

Level of Inceldom. In order to classify the degree of inceldom, the researchers of the study created a scale where the participants were asked to rank 12 items on a five-point Likert scale from (1) "does not describe me" to (5) "describes me extremely well". The participants rated statements such as "I have tried sexual/romantic relationships, but I have been rejected too many times" or "I want to find a romantic/sexual partner, but I am too physically unattractive". The statements are displayed in Appendix C.

For this scale, an exploratory factor analysis was conducted and demonstrated that the items loaded on two factors from .69 to .94. Due to cross loadings, the items "no one from the

opposite sex ever shows an interest in me" and "other men/women are enjoying the pleasure of having romantic/sexual experiences, but not me" were excluded. The internal consistency of the final scale is good with a Cronbach's alpha of .91.

Mating preferences. The main aspect of this research was to measure the perceived mating preferences of the participants regarding women, which was determined by a 7-point Likert scale reaching from "absolutely undesirable" to "absolutely desirable". The foundation of this scale was created by Buss and Barnes (1986) and adjusted by the researchers with the scale of Jonason, Webster and Gesselman (2013). The adjustment of the initial scale consisted of the distinction between short-term and long-term mating. Two questions about the desired traits in a partner were asked and divided into long-term and short-term mating. Overall 19 items were presented and divided into three dimensions. The first dimension "physical attractiveness", consisted of 7 items, namely attractive face, attractive body, physical fitness, masculinity, sex appeal, weight and height. Items that were included in the second dimension "interpersonal warmth" were 7 items, namely kind & understanding, loyal & dependable, emotional stability & maturity, desire for home & children, sociability, exciting personality and sense of humour. The third dimension "social status" consisted of 5 items, namely wealth & good financial prospects, social status, ambition & industriousness, education & intelligence and job & employment.

In order to analyse the items a factor analysis was applied. The items "weight", "desire for home and children", "social status" and "sociability" were deleted due to cross loadings on multiple factors. Moreover, the item "education & intelligence" was removed from the third dimension "social status" and added to the second dimension "interpersonal warmth", because it was loading on the second factor.

The adjusted scales for the mating preferences scale consisted of 6 items loading from .65 to .77 on physical attractiveness, 6 items loading from .48 to .78 on interpersonal warmth and 3 items loading from .62 to .71 on social status. Moreover, the scale demonstrated an acceptable internal consistency with Cronbach's alpha being .85 for physical attractiveness, .78 for interpersonal warmth and .72 for social status.

Data Analysis

In order to analyse the given data, the statistics software SPSS Statistics 26 was used. Due to the lack of participants identifying themselves as incels, the team of researchers identified two balanced groups of incel-men and respectively non-incels by applying a median split. Subsequently, men that scored higher than the median of 1.5 regarding the level of inceldom were identified as incel-men whereas men scoring below were identified as non-incel-men. After conducting the median split, 39 incel-men and 38 non incel-men were identified by the researchers. In this study, the self-identified and researcher-identified incel-men were both used for the analysis and treated as different entities.

In order to test the first hypothesis "incel-men compared to non-incel-men are expected to rate physical attractiveness higher regarding the mating preferences of women", an independent samples t-test was applied on the original sample of self-identified incel-men and non-incel-men with physical attractiveness as dependent variable. Furthermore, another t-test was applied to the sample after the median split was done. This sample consisted of researcher-identified incel-men and non-incel-men.

The second hypothesis "incel-men compared to non-incel-men are expected to rate interpersonal warmth lower regarding the mating preferences of women " was also tested by conducting two t-tests. The t-tests were applied to the two samples in the same manner as above using interpersonal warmth as dependent variable.

Results

Descriptive statistics. The descriptive statistics for two dimensions of the mating preferences scale namely physical attractiveness and interpersonal warmth were calculated (see Table 2). These calculations were made for self-identified incel and non-incel-men as well as for researcher-identified incel and non-incel-men. Due to a technical error which occurred in Qualtrics, only the perception regarding the long-term mating preferences of women were measured.

Table 2

Descriptive statistics

	Self-identified incel-men M(SD)	Self-identified non-incel-men M(SD)	Researcher-identified incel-men M(SD)	Researcher-identified non-incel-men M(SD)
LT Physical Attractiveness	5.88(.92)	5.42(.75)	5.55(.89)	5.50(.72)
LT Interpersonal warmth	5.11(.78)	5.91(.69)	5.58(.84)	5.89(.70)

Note. LT = Long-term, N = 17 (Self-ID incel-men), N = 60 (Self-ID non-incel-men), N = 39 (men scoring above the median of 1.5 of "Level of Inceldom"), N = 38 (men scoring below the median of 1.5 of "Level of Inceldom").

Inferential Statistics. With regard to the **first hypothesis** "*incel-men compared to non-incel-men are expected to rate physical attractiveness higher regarding the mating preferences of women",* significant differences between self-identified incel-men and non-incel-men could be detected. Self-identified incel-men compared to non-incel-men ranked physical attractiveness higher regarding the mating preferences of women, t(75)=2.11, p = .019 (see Appendix E). However, no significant difference between researcher-identified incel-men and non-incel-men could be demonstrated, t(75) = .278, p= .391.

Furthermore, for the **second hypothesis** "*incel-men compared to non-incel-men are expected to rate interpersonal warmth lower regarding the mating preferences of women*" significant differences between self-identified incel-men and non-incel-men could be detected. Incel-men compared to non-incel-men ranked interpersonal warmth lower regarding the mating preferences of women, t(75)=4.08, p =.035. Additionally, researcher-identified incel-men differed significantly from researcher-identified non-incel-men, t(75)=1.76, p=.042. The researcher-identified incel-men compared to researcher-identified non-incel-men ranked interpersonal warmth lower regarding the mating preferences of women.

Discussion

The aim of the study was to find out more about women's mating preferences as perceived by incel-men and non-incel-men. Results of this study suggest that self-identified incel-men compared to non-incel-men rank physical attractiveness higher as a perceived mating preference of women, whereas interpersonal warmth is ranked lower by incel-men than non-incel-men.

A reason for this result might be the ideology of the incels and the notion that women only focus on physical attractiveness when they are searching for a mate (Young, 2019). This belief is widespread in the incel community and an important tool which is used to explain why they are not able to find a partner. Incels refer to themselves as physically unattractive and believe that they are at the bottom of the social hierarchy. Hence, incels think that they maintain a low social status and are not attractive for women, because they thrive for the men with the most desirable traits (Labbaf, 2019).

Since the incel community revolves around a shared mindset and many discussions about the unfair society, the need for a change of their belief system becomes crucial. The belief that they cannot handle dating problems themselves and demand support by the government, demonstrates that they are mainly focused on their outward appearance and accept their self-assigned role as unappealing men (Jaki et al., 2019).

Strengths and Limitations

This research had certain strengths and weaknesses. One of the strengths of this research was the collection of participants from different countries. With a diverse sample it is possible to gather more information about incels from different countries and compare them to each other. Hence, this can be the foundation for another research. Furthermore, the diverse sample can also give an indication about the huge dispersion of the incel community.

Another strength of this research is the digital design of the survey, which makes it possible to reach different individuals from around the world. Thus, it is possible to gather a lot of information and reach individuals that might not be comfortable with face-to-face communication. Moreover, the participants of the survey were able to fill in the questionnaire in

an environment that they feel comfortable with, which might, considering the sensitive topics that were presented, be more beneficial.

One limitation of the study is the distribution of the sample, which only consisted of 17 incel-men and 60 non-incel-men. Due to this imbalance it was necessary to adjust our criteria for the degree of inceldom to increase the number of incels. Furthermore, it was prominent that some participants do not identify as incels, but exhibit the same traits as them. Hence, more individuals with the characteristics of incels were identified within the sample by applying a median split and filtering individuals that fulfill the same criteria without labeling themselves as incels.

Additionally, this may have introduced other limitations such as the loss of information due to the low median, which was applied to classify participants as incels. The median split and the loss of information might have resulted in a different outcome for researcher-identified incel-men and non-incel-men for physical attractiveness. One reason for this outcome might also be a floor effect regarding the level of inceldom scale. As mentioned before, due to the median, many participants with a low degree of inceldom were classified as incels. Hence, information might be missing in order to detect an existing effect. Nevertheless, the comparison between self-identified incel-men and non-incel-men demonstrated stronger beliefs of incel-men in the importance of physical attractiveness.

Another limitation of this research is a mistake that occurred in the questionnaire itself and led to the absence of useful information. The questions about the perceived mating preferences of women were divided into long-term and short-term preferences. Nevertheless, it was not possible for the participants to answer the questions regarding the short-term preferences, because a mistake occurred on the Qualtrics platform and led to the wrong division of the questions. Instead of only women answering the question about their own preferences, men were also able to indicate their preferences in a short-term partner, which was not necessary for our survey. Thus, information about men's perception of women's short-term preferences is missing. Thus, it was mandatory to exclude the questions regarding short-term preferences. Nevertheless, it did not impact the collection regarding long-term mating preferences.

Recommendations for future research

It is recommended to focus more on the data collection and especially on personal contact with incels in general. Despite the incel community being aware of their increased media presence, it does not imply that they want to work together with researchers. Which might hinder the gathering of useful data. Most of the incel communities are not willing to participate in studies where they are investigated and perceive researchers as invading their privacy. Hence, it is important for future researchers to be in contact with the administrators of the different platforms, to guarantee a fair and collusive exchange. In order to gather enough data about incels, it is important to stick to their community rules and accept their privacy.

Another question for inquiry is whether incels had the same beliefs about women before they joined the incel community. It might be essential to gather more knowledge about their prior beliefs in order to create matching interventions for example regarding the acquaintance with women. Due to their pessimistic view towards women they might self-handicap themselves and abstain from conversations with the other gender. The fixed mindset of the incels regarding women might also lead to self-fulfilling-prophecy, because the belief that women only desire the most desirable men might result in the expectation that they have no chance at all and prevent incels from trying to find a mate. Hence, it might also be interesting for future research to analyze in which way the incel community and the collective belief about women is hindering an individual to find a mate.

Another area that might be interesting to investigate is the perspective of incels regarding women and their real life experiences with them. Knowledge about the way they experienced conversations or interactions with women might also give more insight into the creation of their misogynistic view. If there is enough knowledge about the emergence of their perspective, it might be easier to adjust intervention on their behalf. One specific intervention that could be useful for incels is one that challenges their belief system towards women. Since most of the incels mainly are in contact with other incels, they might benefit from interaction with women in a safe space, guided by a mediator. The mediator could help to create a room where women and incels can interact with each other and explain what they desire in a mate and which characteristics are important for them. This might help incels to understand that women not only

focus on physical attractiveness, but also on other factors such as interpersonal warmth. This might result in incels being more optimistic regarding their chances to find a partner, because they believe that they are not able to date due to their lack of physical attractiveness. By including other factors, incels might be able to interact more confidently with women and distance themselves from a mainly pessimistic view towards them. Especially in front of the background of assassination attempts by incels, investigation into the effectiveness of such interventions is much needed.

A last important aspect is the perception that other individuals have regarding incels. Currently, incels are perceived as a homogenous group that shares the same beliefs. Nevertheless, it might be important to emphasize the individual experiences, because the denial towards women might also stem from a trauma and not only from the community.

Conclusion

Considering the findings of this study, it is concluded that self-identified incel-men hold stronger beliefs than non-incel-men that women value the physical attractiveness of their long-term partners the most. Further, self-identified non-incel-men hold stronger beliefs that women value interpersonal warmth the most in a partner. Nevertheless, the same results could not be found for researcher-identified incel-men and non-incel-men regarding physical attractiveness as a perceived mating preference of women. In general, these findings can build a pathway towards the design of psychological interventions which tackle the belief systems of incels regarding women's mating preferences. Focusing on the assassination attempts by incels, such interventions are much needed. To that end, further research into the ideology of incels is strongly recommended.

References

Buss, D. M., & Barnes, M. (1986). Preferences in human mate selection. *Journal of personality and social psychology*, *50*(3), 559.

Gangestad, S. W., & Simpson, J. A. (2000). The evolution of human mating: Trade-offs and strategic pluralism. Behavioral and brain sciences, 23(4), 573-587.

Collins, B. (2018). B. A HORROR TALE OF MALE ENTITLEMENT: JACK THE RIPPER AND 'HIS'SHADOW, THE INCEL MOVEMENT.

Ging, D. (2019). Alphas, betas, and incels: Theorizing the masculinities of the manosphere. *Men and Masculinities, 22*(4), 638-657. doi:10.1177/1097184X17706401

Høiland, T. (2019). *Incels and the stories they tell. A narrative analysis of Incels' shared stories on Reddit* (Master's thesis, University of Oslo, Oslo, Norway). Retrieved from https://www.duo.uio.no/handle/10852/69841

Hypergamy. *Incel Wiki*, 1 June 2020, incels.wiki/w/Hypergamy

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.

Jonason, P. K., Webster, G. D., & Gesselman, A. N. (2013). The structure and content of long-term and short-term mate preferences.

Jones, A. (2020). Incels and the Manosphere: Tracking Men's Movements Online.

Labbaf, F. (2019). United by Rage, Self-Loathing, and Male Supremacy: The Rise of the Incel Community. *Invoke*, *5*. doi: 10.29173/invoke48979

Puts, D. A., Jones, B. C., & DeBruine, L. M. (2012). Sexual selection on human faces and voices. Journal of sex research, 49(2-3), 227-243.

Regan, P. C., & Berscheid, E. (1997). Gender differences in characteristics desired in a potential sexual and marriage partner. *Journal of Psychology & Human Sexuality*, *9*(1), 25-37.

Saragoza, P. (2020). The "Incels" and the Ideology of Extreme Misogynistic Violence. Retrieved March, 2020, from https://www.wtsglobal.com/the-incels-and-the-ideology-of-extreme-misogynistic-violence/

Sociovision, S. (2007). *20-jährige Frauen und Männer heute, Lebensentwürfe, Rollenbilder,*

Einstellung zur Gleichstellung. Bundesministerium für Familie, Senioren, Frauen und

Jugend, 22-23.

Turnage, A. K. (2007). "Email Flaming Behaviors and Organizational Conflict."

ComputerMediated Communication 13(1):43–59, https://doi.org/10.1111/j.1083

6101.2007.00385.x

Waśniewska, M. (2020). The Red Pill, Unicorns and White Knights: Cultural Symbolism and

Conceptual Metaphor in the Slang of Online Incel Communities. In *Cultural*

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

Young, O. (2019). What role has social media played in violence perpetrated by Incels? Peace

Studies Student Papers and Posters, Chapman University Digital Commons.

Informed consent

PROJECT TITLE: People's Perceived Motives, Attitudes and Relationship Preferences

INVESTIGATORS: *Dr. Pelin Gül, Department of Psychology, Health, and Technology, University of Twente, Netherlands.*

PURPOSE

This study investigates people's perceived motives, attitudes and preferences in relationships. We kindly ask you to participate in this study, as we are trying to understand these mechanisms in a diverse group of individuals. We aim to deepen our understanding of the impact that underlying cognitions and emotions can have on different behaviours and formations of relationships among people. **This survey is only open to participants who are 18+ years old.**

PROCEDURES

If you agree to participate, you will be asked general demographics questions (age, sex, sexual orientation, nationality, etc.). Following this, you will be asked with a number of questions about where you stand regarding sexual/romantic relationships, your attitudes towards sex, past sexual behaviour, sexual fantasies, pornography consumption, your attitudes and perceptions of women, and relationships between men and women. You will also be asked questions about your personality. It is important to keep in mind that there are no right or wrong answers. We are interested in the attitudes and experiences of individuals. Therefore, our research relies on your own honest opinion.

At the end of the survey, you will be provided with more details about this study. You will also have a chance to enter your email address if you would like to be considered in a **€50 raffle for an Amazon voucher for those who complete the survey.**

Your participation will last approximately **20 minutes**. People who participate via SONA Systems will be compensated with **0.5 credits.**

PARTICIPANT RIGHTS

Your participation in this study is completely voluntary. You are free to decline to participate, refuse to answer any individual questions, or withdraw from the study at any time without the need to give any reason.

RISKS AND BENEFITS

There are no known or anticipated risks associated with this study. Although this study will not benefit you personally, we hope that our results will add to the knowledge about how people's emotions can influence their attitudes and decisions.

CONFIDENTIALITY

Your responses are completely anonymous, and cannot be traced back to you because no personally identifying information such as names is asked in this survey. The information you provide will not be disclosed to third parties, and they will be aggregated with the responses of other participants and examined for hypothesized patterns. Your anonymous responses will be used for scientific research into various aspects of personality and social psychology and will be published.

QUESTIONS

For further information about this study, you may contact **Dr. Pelin Gül, p.gul@utwente.nl,** the person in charge of this research study.

If you would like to talk with someone other than the researchers to discuss problems or concerns, to discuss situations in the event that a member of the research team is not available, or to discuss your rights as a research participant, If you have any questions about the rights of research participants, please contact the Ethical Review Committee of the Behavioral and

Management Sciences Faculty, University of Twente,

Netherlands, ethicscommittee-bms@utwente.nl.

CONSENT AND AUTHORIZATION PROVISIONS

In order to continue with this survey, you have to agree with the aforementioned information and consent to participate in the study.

Clicking **"I agree and consent to participating in this study"** indicates that you have been informed about the nature and method of this research in a manner which is clear to you, you have been given the time to read the page, and that you voluntarily agree to participate in this study.

Appendix B

Debriefing Information

Thank you very much for participating in our study!

Precisely, our study investigates how one's degree of involuntary celibacy is related to their personality, mental health, various motives, attitudes and perceptions of women and male-female relationships.

We thank you for your help and the decision to participate in our study. If you know of any friends or acquaintances that are eligible to participate in this study, we request that you do not discuss it with them until after they have had the opportunity to participate. Prior knowledge of the questions asked during the study can invalidate the results. We greatly appreciate your cooperation.

For further information about this study, you may contact **Dr. Pelin Gül, p.gul@utwente.nl,** the person in charge of this research study.

If you have any questions about the rights of research participants, please contact the Ethical Review Committee of the Behavioral and Management Sciences Faculty, University of Twente, Netherlands, **ethicscommittee-bms@utwente.nl**.

If you are feeling distressed and are unable to contact a person associated with this study, please contact the **Counseling centre at the University of Twente at +31 53 489 2035**.

Thanks again for your participation.

Appendix C

Level of Inceldom Scale

Instruction: Please indicate how well each statement describes you.
(1= does not describe me, 2 = describes me slightly well, 3 = describes me moderately well, 4 = describes me very well, 5 = describes me extremely well)

I have tried having sexual/romantic relationships, but I have been rejected too many times.

I have tried having sexual/romantic relationships, but I have failed too many times.

I want to find a romantic/sexual partner, but I am too physically unattractive.

I want to date, but nobody wants to date me.

I want to have sex, but there is no one to do it with.

I want to love someone, but there is no one out there for me.

No one from the opposite sex ever shows interest in me.

I have never been lucky enough to enjoy the pleasure of kissing a person of the opposite sex.

I have never been lucky enough to enjoy the pleasure of dating a person of the opposite sex.

I have never been lucky enough to enjoy the pleasure of having sex with a person of the opposite sex.

I have never been lucky enough to enjoy the pleasure of being desired by the opposite sex.

Other men/women are enjoying the pleasure of having romantic/sexual experiences, but not me.

Mating Preferences Scale

Instruction for women: Please indicate to what extent you desire each factor/trait in a long-term, committed romantic relationship partner (husband or boyfriend)? (-3= absolutely undesirable, -2 =undesirable, -1=somewhat undesirable, 0= inconsequential/neutral, 1= somewhat desirable, 2=desirable, 3=absolutely desirable).

Instruction for men: Please indicate to what extent women desire each factor/trait in a long-term, committed romantic relationship partner (husband or boyfriend)? (-3= absolutely undesirable, -2 =undesirable, -1=somewhat undesirable, 0= inconsequential/neutral, 1= somewhat desirable, 2=desirable, 3=absolutely desirable).

<u>Physical attractiveness</u>

Attractive face

Attractive body

Physical fitness

Masculinity

Sex appeal

Weight

Height

<u>Interpersonal warmth</u>

Kind & understanding

Loyal & dependable

Emotional stability & maturity

Desire for home & children

Sociability

Exciting personality

Sense of humour

<u>Social status</u>

Wealth & good financial prospect

Social status

Ambition & industriousness

Education & intelligence

Job & employment

Table 3, Level of Inceldom Scale

Factor Matrix

	Factor 1	Factor 2
I have tried having sexual/romantic relationships, but have been rejected too many times	.89	
I have tried having sexual/romantic relationships, but have failed too many times	.93	
I want to find a romantic/sexual partner, but I am too physically unattractive	.71	
I want to date, but nobody wants to date me	.78	
I want to have sex, but there is no one to do it with	.77	
I want to love someone, but there is no one out there for me	.80	
I have never been lucky enough to enjoy the pleasure of kissing a person of the opposite sex		.94
I have never been lucky enough to enjoy the pleasure of dating a person of the opposite sex		.90
I have never been lucky enough to enjoy the pleasure of having sex with a person of the opposite sex		.92
I have never been lucky enough to enjoy the pleasure of being desired by the opposite sex		.69

Extraction Method: Principal Component Analysis

Table 4, Mate Preferences Scale, long-term

Factor Matrix

	Factor 1	Factor 2	Factor 3
Attractive face	.77		
Sex appeal	.65		
Attractive body	.71		
Physical fitness	.68		
Height	.67		
Masculinity	.65		
Kind & understanding		.75	
Loyal & dependable		.63	
Emotional stability & maturity		.63	
Sense of humor		.78	
Exciting personality		.48	
Education & intelligence		.68	
Wealth & good financial prospect			.65
Job & employment			.71
Ambition & industriousness			.62

Extraction Method: Principal Component Analysis