Per Helge Haakstad Larsen

Mating Market Marginalization

Emotional effects for men and women who lack access to sexual and romantic relationships

Master's thesis in Psychology, specialization in Learning – Brain,

Behavior, Environment

Supervisor: Mons Bendixen

Co-supervisor: Leif Edward Ottesen Kennair

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Preface

This has been an (overly) long journey. I have learned a lot and would do many things differently. For example, I realized that my preregistered hypotheses were formulated quite unclearly, especially those with statistical interactions. While various things went wrong with the master thesis, I did manage to simultaneously publish a paper in *Nature Scientific Reports* (Larsen, Bendixen, Grøntvedt, Kessler, & Kennair, 2021). I wish to thank my supervisors, Mons Bendixen & Leif Edward Ottesen Kennair for giving me opportunities, and for their patient supervision. Also, I wish to thank fellow students Hans Fredrik Sunde, Torstein Rodahl, Mathias Kristoffersen, Amund Skjellstad and Dina Pedersen for helpful discussions and feedback on ideas. I also wish to thank Trond Viggo Grøntvedt for comments and encouragement, and Kyrre Svarva for assistance with Select Survey and data management. Lastly, I want to thank participants at the HBES 2019 conference, including Leda Cosmides, for helpful discussions. Having said that, the errors within, as with the rest of this work, are my own.

I dedicate this manuscript to my parents; for their successful parental investment.

ABSTRACT

Background: What are the psychological and emotional consequences of not being mated? Based on evolutionarily informed theories and considerations, I derived 17 distinct hypotheses on how anger, self-esteem, and mood tracked access to sexual and romantic relationships among men and women.

Method: I carried out a longitudinal survey (N_{T1} =905, 45.2% women, N_{T2} =566, 49% women) where participants self-reported sexual and romantic status, levels of self-esteem, mood and proneness to anger.

Results: Eleven of the 17 hypotheses were supported. Generally, celibacy downregulated self-esteem and positive mood in both men and women, whereas effects on anger were negligible. Singlehood was generally associated with dissatisfaction for both sexes. Dissatisfied singles reported more negative mood but not lower self-esteem than those dissatisfied with their current relationship, regardless of sex. Compared to women with a long-term partner, involuntary single women reported lower self-esteem but not more negative mood. Compared to those dissatisfied with their relationship status at T1 and who did not change relationship status, those dissatisfied with their relationship status who changed relationship status increased positive mood but not self-esteem.

Conclusion: Both men and women experience negative emotional effects of being without access to sexual and romantic partners. By documenting these patterns of associations, this study adds to a deeper understanding of the psychological effects of mating market marginalization.

Sammendrag

Bakgrunn: Hva er de psykologiske konsekvensene av å ikke ha en seksuell eller romantisk partner? Med utganspunkt i evolusjonære teorier utledet jeg 17 hypoteser om hvordan selvaktelse, humør og sinne samvarierte med menn og kvinners tilgang på seksuelle forhold eller kjærlighetsforhold.

Metode: Jeg utførte en longitudinell spørreundersøkelsesstudie (N_{T1}=905, 45.2% kvinner, N_{T2}=566, 49% kvinner) hovedsakelig blant studenter i Midt-Norge, hvor deltagere selvrapporterte forholds- og seksuell status, nivåer av selvaktelse og humør, og tilbøyelighet til sinne.

Resultater: Av 17 hypoteser fant 11 støtte. Generelt hadde sølibati en effekt på selvaktelse og positivt humør blant både menn og kvinner, mens effekter på sinne var neglisjerbare. Å være singel predikerte misfornøydhet blant begge kjønn. Misfornøyde single rapporterte mer negativt humør, men ikke lavere selvaktelse, uavhengig av kjønn. Sammenlignet med kvinner som hadde en langtidspartner, rapporterte ufrivillig single kvinner lavere selvaktelse, men ikke mer negativt humør. Sammenlignet med de som var misfornøyd med forholdsstatus på T1 og som ikke endret status, rapporterte de som endret status mer positivt humør men ikke mer selvaktelse.

Konklusjon: Både menn og kvinner opplever negative emosjonelle effekter av å mangle seksuelle eller romantiske partnere. Ved å dokumentere disse mønstrene av sammenhenger, tilfører denne studien en dypere forståelse av psykologiske effekter av å være ekskludert fra partnermarkedet.

1 INTRODUCTION:

What are the emotional reactions of men and women who lack access to sexual and romantic relationships?

Not having access to sex despite pursuit is called involuntary celibacy. A case in point is a large population of never-married men in China, who describe themselves during interviews as "useless; aimless; hopeless; miserable; sad; distressed; angry; lonely" (Zhou, Wang, Li, & Hesketh, 2011, p. 1426), attributing their state to being unmarried. 43% of single men in China report being sexually frustrated by lacking sexual activity (Shuzhuo, Qunlin, Xueyan, & Attané, 2010). A group who self-describe as incels (an abbreviation of involuntary celibates) has recently risen to prominence. Incels are characterized by particular beliefs, such as the world being against them, and have in some cases endorsed violence as a solution, particularly towards women (O'Malley, Holt, & Holt, 2020). Research on the psychological correlates of involuntary singlehood is scarce, and involuntary celibacy even scarcer, and what exists often have methodological and conceptual issues, such as equating singlehood and celibacy (Donnelly, Burgess, Anderson, Davis, & Dillard, 2001). Sexual activity, casual sex, and committed romantic relationships have recently become less common among young adults (Lei & South, 2021; South & Lei, 2021; Ueda, Mercer, Ghaznavi, & Herbenick, 2020). Understanding the psychological consequences of lacking access to sexual and romantic relationships is therefore of growing importance. If the consequences of involuntary celibacy and singlehood are severely detrimental to the well-being of individuals and society, then understanding those consequences will be beneficial.

Individuals compete in the mating market for desirable partners and to get a partner at all. Given that individuals' desirability as a partner is necessarily relative, and the preferences of the sexes being what they are, some individuals are outcompeted fall behind in the mating market (Baumeister, Reynolds, Winegard, & Vohs, 2017). Given the importance of reproductive success over evolutionary time, we should expect there to exist mechanisms that alert individuals when their pursuit of access to sexual and romantic relationships does not bear fruit.

Therefore, the aim of the current study is to investigate whether there are associations between lack of access to sexual or romantic relationships and self-esteem, mood and anger, and whether the emotional effects systematically vary with entering or exiting celibacy and/or relationships.

1.1 Conflict

In nature, conflict is ubiquitous. At all levels of analysis, all living organisms have nonoverlapping interests (Queller & Strassmann, 2018). Time and resources are limited, and the genetic interests of even closely related organisms seldom overlap completely. To successfully reproduce in the face of conflicting interests, organisms must have evolved numerous functionally specialized adaptations to manage conflicts.

One such conflict is between the sexes (Buss, 2017). Because humans—like most animals—reproduce sexually, individuals only pass 50% of their genes to the next generation. Although males and females have a shared interest in offspring survival, their genetic interests do not overlap completely: what would be optimal for one sex may not be optimal for the other. This should select for specific mechanisms in each sex aiming to steer the behavior of the opposite sex closer to one's own optimum (Buss, 2017). The sexes differ markedly in the minimal amount of parental investment needed to secure offspring survival—at a minimum 9 months for human females, at a minimum some seconds for males. This fact of reproductive biology led to Parental Investment Theory (Trivers, 1972), which was further extended and applied to human mating psychology with Sexual Strategies Theory (Buss & Schmitt, 1993). Briefly, given the cost of parental investment, the sex faced with the largest minimal parental investment will evolve mechanisms to ensure higher selectivity in mate choice, whereas the sex faced with lower minimal parental investment will to a higher degree evolve mechanisms to compete with same sex members in order to successfully reproduce, because their reproductive success is relatively more limited by the other sex' selectivity.

In concrete terms, human males would often want sex to happen sooner rather than later, whereas having sex with an unvetted male interferes with females' desired strategy. Given the costs of siring offspring of low quality with a mate of poor investment ability, females should require more displays of for example commitment and status from the male. Thus, a male strategy (pursue sex often and with many) conflicts with a female's strategy (find a male that can provide direct or indirect benefits to her and her children). This should give rise to counter-strategies in females (e.g. search for cues of ability to invest) which in turn should, over generations, select for counter-counter-strategies in males (exaggerate willingness to invest, love and resources) and so on (Buss, 1992).

As a consequence, the sexes are in a sense bargaining over an aspect of the female phenotype: the costly resource of parental investment (Queller & Strassmann, 2018). Males want sexual access to females, whereas females want a quality mate and their investment. Because individuals vary in their desirability to the other sex (Walter et al., 2020), some males will have to bargain for sexual access (and to a lesser degree long-term partnering), whereas some females will have to bargain for male investment (and to a lesser degree sex).

Due to men and women's strategic differences, we should not expect the consequences of involuntary celibacy or singlehood to be equal for the sexes. Over evolutionary time, sexual competition has been more intense for males, resulting in higher variance in reproductive success (Betzig, 2012; Trivers, 1972). These dynamics are also apparent in present day traditional cultures, such as the Kipsigis peoples of Kenya and Tanzania where men have between 0 and 80 children, with a mean of 12.42 and reproductive variance of 85 (Betzig, 2012). As a consequence of this competition, we can expect the outcompeted males to both experience and express anger and aggression, and take more risks (Wilson & Daly, 1985). As Henrich, Boyd & Richerson (2012) note:

"Faced with high levels of intra-sexual competition and little chance of obtaining even one long-term mate, unmarried, low-status men will heavily discount the future and more readily engage in risky status-elevating and sex-seeking behaviours. This will result in higher rates of murder, theft, rape, social disruption, kidnapping (especially of females), sexual slavery and prostitution. "(p. 660)

Because sex is necessary for reproduction, a task which none of living humans' ancestors failed to do, and pair-bonds secures males a partner in the face of partner scarcity and reduces their paternity uncertainty (Schacht & Bell, 2016), we should expect males and females both to be motivated to find short- and long-term partners (i.e., seek sex and forming lasting pair-bonds). Analyses of human motivations reveal these to be important goals (Talevich, Read, Walsh, Iyer, & Chopra, 2017).

1.2 Strategic interference mechanisms as consequences of sexual conflict

For the reasons above, we expect both men and women to have mechanisms for alerting them to interferences in their preferred mating strategy. *Strategic interference theory* (Buss, 1989) suggests that negative emotions such as anger and upset serves as the proximate

mechanisms for alerting humans of interference in their mating strategies. They are hypothesized to function to take actions to reduce or eliminate the source of strategic interference and avoid future contexts of interference (Buss, 1989; Haselton, Buss, Oubaid, & Angleitner, 2005).

According to the strategic interference perspective, men in general should be angered and upset by the strategies of women that interfere with their own, such as not agreeing to have sex, not wanting to have sex as often as they desire, or requiring higher standards (Buss, 1989). Given the differing preferences and strategies of women, men should therefore more often be—and be more upset by—unsuccessfully pursuing sex. For example. Buss (1989) found that within newlywed couples, withholding sex upset men more frequently and was linked to men's dissatisfaction. Even though the sources of strategic interference differ between the sexes, both are hypothesized to experience negative emotions as a result.

Importantly, adaptations manifest themselves not as consciously represented goals, but as motivations by neurocognitive mechanisms to bring about those circumstances that would have, ancestrally, led to increases in fitness (Barrett, 2015; Pinker, 1997; Tooby & Cosmides, 1992). That is, humans are expected to have motivations for having sex and finding relationship partners, but not necessarily have conscious knowledge of their functions and motivation to maximize reproduction. For example, many men will pay to have contraceptive sex with prostitutes but must be paid to donate sperm (Tooby & Cosmides, 2015).

1.3 Self-esteem and sociometric status

Self-esteem can be defined as "one's overall sense of worthiness as a person" (Schmitt & Allik, 2005, p. 623). Esteem is a fundamental and functional human motivation (Kenrick, Griskevicius, Neuberg, & Schaller, 2010), and sociometer theory proposes that esteem tracks others' valuation of the self (Kurzban, 2010). Several self-conscious emotions have been found to track others' valuations of the self, leading to the proposal that self-conscious emotions might just as well be called other-conscious emotions (Cohen, Chun, & Sznycer, 2020; Sznycer, 2019). Evidence indicates that self-esteem acts as an index of the degree to which others include or value the self (Baumeister & Leary, 1995), and that self-esteem is downregulated following experimental social exclusion (Williams, 2007).

Self-esteem's role in the mind could be thought of as an internal regulatory variable, which other mechanisms access to regulate behavior (Tooby et al. 2008). In this case, the self-esteem index may track local status, allowing adaptive behavior consistent with opportunities and limitations imposed by this status. Close links have been documented between social status and reproductive success: among Norwegian men, 71% of the lowest five percent of earners are childless, and are more likely to be unpartnered (Bratsberg, Kotsdam, & Walther, 2021). Because close links exist between social status and reproductive ability across cultures (von Rueden & Jaeggi, 2016), we should expect individuals' self-esteem to correlate with mating success and failures.

However, the evidence here is mixed. Some have found associations, albeit small (Schmitt & Jonason, 2019). Self-perceived mate value seem to closely track self-esteem in men who unsuccessfully pursue a short-term mating strategy (Penke & Denissen, 2008). Experiencing rejection due to being judged as having low capacity as a mate downregulates self-esteem (Pass, Lindenberg, & Park, 2010), but so does friendship rejection, while self-perceived mate value is lowered by romantic rejection only (Zhang, Liu, Li, & Ruan, 2015). Others also find evidence for a specific mating sociometer (Kavanagh, Robins, & Ellis, 2010; Kirkpatrick & Ellis, 2003).

Another association between mating success and self-esteem is found in rural regions of China, where men heavily outnumber women (Zhou & Hesketh, 2017). Compared to those ever-married, never-married Chinese men aged 20-40 report lower self-esteem, lower mood and more aggression (Zhou & Hesketh, 2017; Zhou, Yan, & Hesketh, 2013), and those who report having difficulties finding a wife have lower quality of life and smaller social networks (Wang, Yang, & Attané, 2018).

The direction of causality is unknown, however, as previous research has been mostly correlational and therefore unable to causally link self-esteem with sexual activity or relationship status. A longitudinal design will be able to tell whether self-esteem tracks sexual and romantic status within the same persons.

1.4 Mood

Mood can be defined as "a long-term pervasive state" of subjective feelings (Nesse, 2019, p. 87), with mood being to *affect* what climate is to weather. From a functional

perspective, mood should not simply reflect quirks or faults of the mind, but should be regulated by impactful life situations (Nesse, 2019) The relative availability of mates constitutes one such important life situation. Consequently, the system for regulating mood should be attentive to both successes and failures in the mating market.

Mood should motivate withdrawal from activities with potentially adverse effects (Nesse, 1999), analogously with physical pain systems which motivates withdrawal from harmful activities (Hagen, 2011). Because not having a mate is a consequential outcome in the currency of fitness, the mood system should alert the individual to the circumstance and should further motivate him/her to do less of activities correlated with being unmated (through negative mood), and more of activities correlated with having or attracting a mate (through positive mood).

Supporting a role for the mood system in mating, and more specifically, low mood functioning as a warning system, surveys of single men in Asia find that never-married men suffer more from low mood and depression (Zhou & Hesketh, 2017). In the case of single, celibate men, low mood might be both cause and effect: more neurotic men are more likely to be childless and have a lower probability of being in a relationship (Skirbekk & Blekesaune, 2014). For single people, being motivated to seek a mate is associated with increased depression and anxiousness, with lower levels of life satisfaction (Ko et al., 2020). Men reported being more motivated than women to find a new romantic/sexual partner. When they find a sexual partner, men more than women feel rewarded in the form of more physical gratification from sex, whereas women more than men tend to regret casual sex (Kennair, Bendixen, & Buss, 2016).

Overall, studies find a close connection between sex and feelings of happiness, (Cheng & Smyth, 2015; Schmiedeberg, Huyer-May, Castiglioni, & Johnson, 2017), although this has been studied primarily among those in a relationship (Muise, Schimmack, & Impett, 2016). A study of 16.000 randomly sampled individuals found a small negative effect for both celibacy and infrequent amounts of sex on happiness (Blanchflower & Oswald, 2004). In a longitudinal study of casual sex among singles, those who did not hook up during the study scored higher on anxiousness and depressive measures (Vrangalova, 2015).

Given these considerations, we should expect to see positive mood downregulated in those unsuccessful in attracting sexual or romantic partners. Importantly, mood should be

especially sensitive to *changes* or progress towards some goal (Nesse, 2019). Therefore, mood should be upregulated by exiting celibacy or involuntary singlehood.

1.5 Anger:

Across cultures, access to sex can be viewed as a resource with a sharp asymmetry between supply and demand (Baumeister et al., 2017): "Everywhere sex is understood as something females have that males want" (Symons, 1979, p. 253). Thus, bargaining for sexual access is more relevant for men than women, and for some men more than others. When facing evolutionarily recurrent situations such as the challenge of finding a partner to reproduce with, specific emotion program(s) should be turned on aiming to counteract the prospects of becoming an evolutionary dead-end (Tooby & Cosmides, 2015).

One such program is anger. The recalibrational theory of anger suggests that anger functions to counteract being devalued by others by bargaining for better treatment (Sell, 2019). The anger reaction should function to attempt to make the other person raise his or her willingness to take on costs for your benefit—that is, change their Welfare Tradeoff Ratio, WTR—for example by threatening the imposition of costs or withholding of benefits. Unlike prior theories of aggression, the recalibrational theory specifies that anger should not always be triggered by having large costs imposed or large benefits withheld—in absolute terms—but should depend on whether that large cost is accompanied by a large or small benefit to the perpetrator (Sell, 2019; Sell, Tooby, & Cosmides, 2009). The relative value of the "resource" bargained for will not be equal for everyone. For a person — likely male— who lacks sexual access, the value of sex is potentially very high, resembling how the value of food is very high for a hungry animal. All else equal, withholding mating benefits should trigger anger.

However, all else is not equal. The magnitude of anger should not only depend on the value of the resource (the perceived or actual value of sex as a commodity), but also on one's entitlement level which should be calibrated by bargaining ability (Sell, 2019). Bargaining ability could for example include the individual's strength, status or mate value, which allows the individual to confer or withhold benefits, or inflict or threaten harm (Tooby & Cosmides, 2015). All else equal, individuals with more bargaining power should feel more entitled to better treatment, while those with less should be prone to react with rumination and social bonding (Hagen & Rosenström, 2016; Sell & Lopez, 2020). Indeed, more formidable and attractive individuals anger more easily and feel more entitled to better treatment (Sell, Eisner, & Ribeaud, 2016; Sell et al., 2009). Individuals with higher mate value, perhaps

particularly women, aggress more easily (Sell et al., 2016; Wyckoff & Kirkpatrick, 2016), while men who report lower mate-value and dominance are more likely to endorse indirect over direct aggression, or at least endorse less direct aggression than men with higher self-perceived mate-value and dominance (Wyckoff & Kirkpatrick, 2016).

Anger might then be triggered by cues of being devalued as a sexual partner because it implies that they hold you to be deficient in ability to confer benefits (Sell, 2019). In mating contexts, feelings of anger is known to be reported by men experiencing sexual deception (Buss, 1989), by never-married men (Zhou & Hesketh, 2017), and by low-status unmated males in polygynous groups (Koos & Neupert-Wentz, 2019). In one study, 35% of celibates reported anger related to their lack of sexual partners (Donnelly et al., 2001). Experiments indicate that sexually rejected men often respond with anger, especially among those who form hostile perceptions of the woman (Woerner, Abbey, Helmers, Pegram, & Jilani, 2018); some are more sensitive to romantic rejection than others (Romero-Canyas, Downey, Berenson, Ayduk, & Kang, 2010). We might expect men to anger in the face of female rejection.

However, all men should not anger equally. As noted, sex can be understood as a resource where perceived supply and demand determines its perceived value (Baumeister & Vohs, 2004). Perceived high levels of promiscuity could be interpreted as a cue that the exchange value of sex is low (Luberti, 2020). Thus: If (1) anger is a function of the perceived costs and benefits to both parties involved, and (2) if the male lacks sexual access and (3) perceives the commodity of sex to be cheap, then (4) he might infer that the female does not value the resource as highly, and yet still does not want to confer it to him. This should trigger anger.

The hypothesis is therefore that men who lack access to sex, (who thus value sex highly) and who also perceive women to be promiscuous (thus in such men's minds indicating that the exchange value of sex in the mating market is low), should react with more anger. This conjecture is supported by indirect evidence: experimentally sexually rejected men express more restricted and traditional sexual attitudes, and when manipulated into beliefs of widespread promiscuity, sexually restricted men increased their preference for traditional relationship norms (Luberti, 2020).

1.6 Relationship status and satisfaction with status

Consistent with predictions from sexual strategies theory, both men and women have a preference for long-term mating over staying single, because they both can derive important benefits from being partnered (Buss & Schmitt, 2019). Viewed this way, a close romantic relationship can sensibly be understood as a fundamental human need (Kenrick et al., 2010). In a study of 27 societies, single people rated mate seeking as an important goal for themselves (Ko et al., 2020). However, because men's reproductive success historically was more limited by access to sexual partners, men more than women will pursue short-term mating as well, given opportunities (Buss & Schmitt, 2019). Because not all men will have such opportunities, one of the best strategies for a man facing few sexual options would often be to stop pursuing short-term mates and focus more on finding a long-term mate (Penke & Denissen, 2008). As a consequence of strategic interference, both unsuccessfully pursuing short- and long-term relationships should have psychological effects such as downregulating mood and self-esteem.

Several lines of evidence speak to how people find being single unpreferable. A substantial majority of single people are less positive toward singlehood than forms of romantic commitment, and even after experiencing break-ups, people report more positive attitudes toward partnered romantic relationships and less positive attitudes toward being single (Poortman & Liefbroer, 2010). Such individuals should be expected to be motivated to find new romantic relationships, and experience increases in subjectively positive emotions by entering romantic relationships. Involuntary life-long singles express regret and dissatisfaction with their status (Timonen & Doyle, 2014)

Both voluntary and involuntary singlehood predicts feelings of romantic loneliness, especially so among those involuntarily single (Adamczyk, 2017). Compared to those in a relationship, single people report more romantic loneliness, and more so the longer they are single (Adamczyk, 2016) and they also report less satisfaction with life; but those in a romantic relationship report more social loneliness (Adamczyk & Segrin, 2015). However, some analyses indicate that life satisfaction and affect is related to relationship status independently of loneliness (Adamczyk & Segrin, 2015; Ben-Zur, 2012) and that single people don't experience more social loneliness and have similar levels of perceived friendship support compared to those who are romantically partnered (Adamczyk, 2016). Thus, singlehood in itself is not necessarily related to loneliness, but this might be different for involuntary singlehood.

To adaptively calibrate aspirations, self-esteem should be responsive to relationship experiences. Before entering relationships, self-esteem should calibrate downwards if met with rejective feedback from potential romantic relationship partners, thus downregulating aspirations (Kirkpatrick & Ellis, 2003). For those in a relationship, day to day perceived interaction quality has been found to predict day to day variation in self-esteem (Denissen, Penke, Schmitt, & van Aken, 2008), indicating that self-esteem is sensitive to both potential and actual romantic partner's valuation and devaluation of the self. Highlighting the importance of relationships on self-esteem, satisfaction with committed relationships predicts self-esteem to develop more positively across the life span (Orth, Maes, & Schmitt, 2015), and entering and exiting relationships is associated with increases and decreases in self-esteem, respectively (Luciano & Orth, 2017). Marital status predicts self-esteem, independently of self-perceived mate value (Brase & Guy, 2004). Compared to those in a relationship, single people report less sexual self-esteem, less sexual satisfaction, and more sexual depression (Anticevic, Jokic-Begic, & Britvic, 2017).

Women, in contrast to men, were more limited in their reproductive success by access to long-term partners and consequently place a relatively higher premium on long-term committed relationships. Women more than men report dissatisfaction with remaining in a state of involuntary singlehood, reporting more romantic loneliness (Adamczyk, 2017; but see Adamczyk, 2016). We might expect women's mood fluctuations and possibly self-esteem to be more attuned to success and failures in solving the problem of commitment in long-term mating.

In sum, romantic relationships confer many important benefits. We should therefore expect lack of romantic relationships, a form of interference in long-term strategies, to regulate emotional variables such as self-esteem and mood, and that this should be relatively more relevant for women.

1.7 Current study: aims and hypotheses

The aim of the current study is to investigate whether the associations discussed above pertains to individuals who lack access to sexual or romantic relationships. Specifically, whether there are associations between recent lack of sex (celibacy), self-esteem, anger and mood, and whether they systematically vary with entering or exiting celibacy. These motivational systems could possibly function to prioritize actions that eventually could lead to escaping the condition of being celibate or without a romantic relationship. Given how

consequential the conditions of being involuntarily celibate and/or without a pair-bond were for all ancestors, we should expect mechanisms that function to deal with the situation.

1.7.1 Hypotheses:

The data and theoretical considerations above led to the following 17 hypotheses and sub-hypotheses, all preregistered at the Open Science Framework: https://osf.io/5rf8k.

- 1. Sexual activity and regulation of mood and self-esteem
 - a. Relative to men who report having had regular sex or casual sex during the last year, men reporting little to no sexual activity will report lower self-esteem (Kirkpatrick & Ellis, 2003; Penke & Denissen, 2008; Schmitt & Jonason, 2019; Zhou & Hesketh, 2017)
 - i. This effect will be more pronounced for men pursuing a short-term strategy (Penke & Denissen, 2008)
 - b. Relative to men who report having had regular sex or casual sex during the last year, men reporting little to no sexual activity will report lower positive mood scores, as measured by the Brief Mood Introspection Scale (Mayer & Gaschke, 1988)
 - c. Relative to men, women overall will report more negative mood (Nolen-Hoeksema & Rusting, 1999)
 - d. Changes in sexual activity in men from T1 to T2 will be related to changes in self-esteem score and positive emotions (i.e. participants who increase sexual activity will report higher self-esteem and higher score on positive mood feelings on the BMIS and vice versa) (Pass et al., 2010; Penke & Denissen, 2008; Schmitt & Jonason, 2019)
 - e. Relative to men, women who increase sexual activity from T1 to T2 will not report higher self-esteem or mood (Kennair & Bendixen, 2018; Kennair, Wyckoff, Asao, Buss, & Bendixen, 2018; Townsend & Wasserman, 2011)
- 2. Sexual activity, perceptions of women's casual sex and proneness to anger
 - a. Men reporting little to no sex who also report having perceptions of women as promiscuous will report more anger as measured by the Proneness to anger scale (Sell et al., 2009)
 - b. Changes in sexual activity from T1 to T2 will be associated with changes in anger (i.e., increase in sexual activity will result in reporting less anger, and vice versa)

3. Relationship status satisfaction, mood and self-esteem

- a. Relative to those in a relationship, participants who report being single will report more dissatisfaction with their relationship status (Baumeister & Leary, 1995; Kirkpatrick & Ellis, 2003; Ko et al., 2020)
- b. Participants who report dissatisfaction with being single will report lower selfesteem and more negative mood (Zhou & Hesketh, 2017)
- Relative to women who have a long-term partner, women unable to obtain a long-term partner will report more negative mood and lower self-esteem (Kirkpatrick & Ellis, 2003)
- d. Participants who report dissatisfaction with current relationship status and who change relationship status from T1 to T2 will report more positive mood and higher self-esteem

2 Methods

Following Simmons, Nelson & Simonsohn's (2012) 21 word solution to transparency in reporting, I report how I determined sample size, all data exclusions, all manipulations, and all measures in the study.

2.1 Design and subjects

A two-wave longitudinal study was carried out in Trondheim. Participants were primarily students at the Norwegian University of Science and Technology (NTNU). The goal was to recruit more than 600 participants. In total, 973 participants completed the first survey. About three months later (range 1.7- 4.6, M= 2.86, SD=0.52), participants who gave their email address were sent a follow-up survey with the same questions. In total, 670 participants completed both surveys.

Because the study aimed to investigate heterosexual mating dynamics, I excluded participants who were non-heterosexual (n_{T1} =44, n_{T2} =28), asexual (n_{T1} =9, n_{T2} =5) or reporting not being either male or female (n_{T1} =3, n_{T2} =1). Additionally, I excluded participants giving inconsistent responses, such as reporting different gender (n=5) or sexual orientation (n=9) from T1 to T2, becoming a virgin from T1 to T2 (n=1), not reporting months since sex at T2 (n=25) and large discrepancies in reported months since sex (n=5) or relationship end (n=22) from T1 to T2. The final sample consisted of 905 heterosexual individuals at T1 (45% women) aged between 17 and 64 (n=21.82 years, SD=3.24, n=22.85 years,

SD=4.89), 566 of which also responded at T2 (49.5% women) aged between 17 and 51 (M_{women} =22.05, SD=3.0, M_{men} =22.98, SD=4.19).

2.2 Procedure

First-wave data collection occurred between late November 2019 and early February 2020, prior to the coronavirus pandemic. The study was carried out using a web-based questionnaire which participants accessed by either a link or QR-code. The survey link was distributed on flyers spread around NTNU campuses, such as on announcement boards and in men's restrooms. Digital flyers were shared on Facebook, which produced a snowball recruitment method as individuals shared the survey. Participants were also recruited during lecture breaks, where potential participants were handed a flyer and could choose to fill out the online survey on the spot or in privacy later. At the end of the survey, participants were asked to leave their email address to fill out the same survey again after two to four months. As an incentive, participants were offered the chance to win a tablet of their choice worth up to 4000 NOK (about 420 USD) if they completed both surveys. The data collection procedure was approved by the Norwegian Centre for Research Data (NSD), ref. number 832141 (see appendix B).

2.3 Materials and measurements

Participants self-reported current relationship status, how satisfied they were with their current relationship status (1=very dissatisfied, 5=very satisfied), how many committed relationships they had been in, what genders they were most attracted to (sample items: "only men", "mostly women"), and whether they were virgins (n_{T1}=100, n_{T2}=65.), attitudes toward own sexuality, time since last intercourse, sex drive, perceived ease of finding a sex partner, self-perceived mate value, ideal number of new sex partners next five years; and ambivalent sexism inventory¹. Those not in a committed relationship but who had previously been in one were asked how much time has passed since their last relationship ended and how long it had lasted. Those currently in a relationship were asked about partner sex, relationship duration, relationship satisfaction, relationship sex frequency, ideal sex frequency. Perceptions of the sexual lives of others were measured with questions on perceived average single

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¹ Due to a survey construction error, men were not able to respond to the ASI, rendering it unusable

man/woman's number of sexual partners past year/in total, perceived ease of finding a sex/romantic partner for the average man/woman. See Appendix C for the full survey.

2.3.1 Independent variables (predictors)

- 2.3.1.1 Celibacy was a binary variable defined as not having had sex during the last six months (0= those who had sex the last six months, n_{T1} 0=672, 1=those who reported more than six months since they last had sex, including virgins, n_{T1} 1=233). The question measuring sexual activity was "how much time has passed since your last intercourse", and participants answered by filling in years and months in separate fields. Reported number of years were converted to months, for both T1 (M=3.39, SD=10.35, range 0-177) and T2 (M=3.48, SD=13.46, range 0-180). The hypotheses pertained to sex during the last year. However, because few individuals did not have sex during the last year (n_{T1} =192), I relaxed the criterion and instead used six months (n_{T1} =233). This deviates from the preregistration but is in line with previous research (Donnelly et al., 2001). For the follow up, celibacy status was defined as having had sex since the first survey (n_{T2} 0=130, n_{T2} 1=430).
- 2.3.1.2 *Singlehood* was a binary variable defined as those who were single (i.e. not in a committed relationship).
- 2.3.1.3 *Involuntary singlehood* was a binary variable defined as those who had not been in a relationship for six months or more or had never been in a relationship, and who reported relationship status dissatisfaction (n=163, compared to those in a committed relationship, n=461).
- 2.3.1.4 Sociosexuality. Participants responded to the Sociosexual orientation inventory-Revised (SOI-R; Penke & Asendorpf, 2008) The SOI-R consists of three subscales with three questions each: sociosexual behavior (sample item: "with how many different partners have you had sex within the past 12 months?"), with response options ranging from 1 (0) to 9 (20+); sociosexual desire (sample item: "I can imagine myself being comfortable and enjoying "casual" sex with different partners"), with anchors 1 (completely disagree) and 9 (completely agree); and sociosexual attitudes (sample: "In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?"), ranging from 1 (never) to 9 (at least once a day). The SOI-R items were scaled and scored as per Penke & Asendorpf (2008). Internal reliability was good (α = 0.86 at both T1 and T2). Higher scores mean more inclination to engage in casual sex.

2.3.1.5 Perceptions of promiscuity. I created items to assess perceptions of how much other males and females engage in casual sex. Participants responded to items such as "how many sexual partners do you think an average single woman of your age has had the last year" and "how easy would it be for an average single woman of your age to find a sex partner". The participants rated their responses on a Likert scale, ranging from 1 to 5, with 1 being "very difficult/impossible" and 5 "very easy". For unknown reasons, responses to these items were significantly lower (n_{T1} =450, n_{T2} =285).

2.3.2 Outcome variables:

- 2.3.2.1 Brief Mood Introspection Scale. The BMIS (Mayer & Gaschke, 1988) was translated to Norwegian and independently back translated to verify meaning retainment. Two items were added: "blue" (nedstemt) and "furious" (rasende). Responses ranged from 1 (to a very small degree) to 7 (very large degree). Based on previous guidelines (Kokkonen & Pulkkinen, 2001) and visual inspection, a positive mood variable was created from averaging the items happy and satisfied, with higher scores indicating more positive mood, and a negative mood variable was created from averaging the items sad, blue, tense, nervous, tired, where higher scores indicates more negative mood. Internal consistencies were good for positive mood ($\alpha_{TI} = 0.79$, $\alpha_{T2} = 0.82$) and negative mood ($\alpha_{TI} = 0.79$, $\alpha_{T2} = 0.80$).
- 2.3.2.2 Proneness to anger scale. The scale was translated to Norwegian and independently back translated to verify meaning retainment. Following procedures from Sell, Tooby & Cosmides (2009), items were averaged with seven items reversed. Scores were on a 1 (strongly disagree) to 7 (strongly agree) scale, with sample items: "although I don't necessarily act on it, I feel an urge to punch people who think they are better than me" and "if someone insults me I just let it pass" (reversed). Internal reliability was good ($\alpha = 0.81$ for both T1 and T2). Some items were added for masking purposes, such as "I am a very cheerful person" and "my life is steadily improving", which were not included in the analyses.
- 2.3.2.3 Rosenberg self-esteem scale. The RSES Norwegian translation was used (Alsaker & Olweus, 1986), with four additional body image items (Alsaker, 1992). Scores were on a scale from 1 (strongly disagree) to 5 (strongly agree), with sample items: "at times I think I am no good at all" and "on the whole, I am satisfied with myself". The negatively formulated items were reversed, and all items were subsequently averaged. Higher scores mean higher self-esteem. Internal reliability was good (α_{TI} =0.89 and α_{T2} =0.90).

2.3.3 Analyses:

Data and scripts are available on the Open Science Framework: https://osf.io/csg3a/. I used regression and multiple regression analyses with robust estimations of standard errors. For longitudinal analyses I used multilevel regression models with participant as the grouping variable and sex as covariate. This effectively controls for all unobserved between-person variation, but is agnostic to whether participants entered or left celibacy. As only a few participants were discordant on celibacy (nexited=19, nentered=36) and relationship status (nexited=34, nentered=14), I did not have adequate power to test directional effects. All analyses were performed using Stata/MP 16.1 for Mac (StataCorp, 2019). Statistical assumptions were tested. To mitigate problems of homoscedasticity, I used robust estimation of standard errors. To mitigate problems of correlated errors, because observations are not independent across T1 and T2, I used multilevel models. Other assumptions were met.

Analysis of drop-out. To investigate whether dropout was selective from T1 to T2, I applied logistic regressions to predict dropout at T2 (no/yes) from T1 variables. Neither age (z=-0.32, p=.749), being in a committed relationship (z=-053., p=.599), being sexually active (z=-0.42, p=.674), relationship status satisfaction (z=-0.89, p=.371), sociosexual orientation (z=1.33, p=.185), proneness to anger (z=1.22, p=.221), self-esteem (z=0.22, p=.830), positive mood (z=-1.21, p=.227) nor negative mood (z=0.00, p=.997) predicted dropout. However, men dropped out at a significantly higher rate than women (z=2.78, p<.01). Of those who dropped out, 62% were men.

3 Results

The analyses were primarily done in the order listed under *hypotheses* above. First, I investigated the relationships between sexual activity and regulation of mood and self-esteem. Second, I investigated relationships between sexual activity, perceptions of female promiscuity and proneness to anger. Third, I investigated the relationships between relationship status satisfaction, mood, and self-esteem. Finally, I reshaped the dataset and investigated the longitudinal hypotheses. The results and support for hypotheses are summarized in table 1 along with the relevant effect size.

Table 1: List of hypotheses and findings

		Hypotheses	Supported	Ef. Size (CI)
1		Relative to men who report having had regular or casual sex during the last [six months], do men reporting little to no sexual activity also report lower self-esteem or positive mood?		
		Self-esteem	Yes	-0.31
		Positive mood	Yes	[46,16] -0.34
	ai	Is the effect on self-esteem more pronounced for men pursuing a short-term strategy?	No	[-0.52, -0.22] -0.08 [-0.20, 0.04]
	c	Relative to men, do women overall report more negative mood?	Yes	-0.25 [-0.38, -0.12]
	d	Do participants who increase sexual activity from T1 to T2 report higher self-esteem and positive mood scores?		
		Self-esteem	Yes	0.13 [0.05, 0.21]
		Positive mood	Yes	0.30 [0.14, 0.45]
	e	Relative to men, do women who increase sexual activity from T1 to T2 not report higher self-esteem or mood?		
		Self-esteem	Yes	0.12 [-0.05, 0.28]
		Positive mood	Yes	0.02 [-0.29, 0.32]
2	a	Do men reporting little to no sex (within the last six months), who also report percentions of women's promiscuity, report more anger?	No	0.13
	perceptions of women's promiscuity, report more anger?b Do changes in sexual activity from T1 to T2 relate to changes in anger (i.e., increases in sexual activity resulting in reporting less anger, and vice versa)			0.09 [0.01, 0.18]
3	a	Relative to those in a relationship, do participants who report being single also report more dissatisfaction with their relationship status?	Yes	-1.53 [-0.30, -0.26]
	b	Do participants who report dissatisfaction with being single also report lower self-esteem and more negative mood?		
		Self-esteem	No	0.02 [-0.22, 0.25]
		Negative mood	Yes	0.39 [0.10, 0.67]
	c	Relative to women who have a long-term partner, do women unable to obtain a long-term partner also report lower self-esteem and more negative mood?		[0.10, 0.07]
		Self-esteem	Yes	-0.20 [-0.38, -0.02]
		Negative mood	No	0.01 [-0.27, 0.30]
	d	Do participants who report dissatisfaction with current relationship status and who change relationship status from T1 to T2 report more positive mood and higher self-esteem?		[0.27, 0.30]
		Self-esteem Self-esteem	No	0.08
		Positive mood	Yes	[-0.07, 0.24]
				[0.02, 0.67]

3.1. Sexual activity and regulation of mood and self-esteem

In order to investigate H1a, "Relative to men who report having had regular sex or casual sex during the last year, do men reporting little to no sexual activity also report lower self-esteem?", I regressed Celibacy on self-esteem. Using robust regression estimation, celibacy predicted self-esteem in men, b = -0.31. (95% CI [-0.46, -0.16], $\beta = -.20$). Those who did not have sex the last six months reported 0.31 units lower self-esteem than those who did. Celibacy explained a significant proportion of variance in men's self-esteem scores, $R^2 = .04$, F(1, 486) = 17.28, p < .001.

To investigate H1ai, "Is this effect more pronounced for men pursuing a short-term strategy?" I regressed Celibacy on self-esteem, adding an interaction term of celibacy and SOI. There was no significant interaction, b = -0.08 (95% CI [-0.20, 0.04]). Among those who were not sexually active, those who had a short-term strategy did not report lower self-esteem. Because SOI also includes questions about casual sex partners, I ran a separate test substituting SOI with the subcomponent SOI-desire (desire for casual sex). There was no significant interaction, b = -0.04, (95% CI [-0.13, 0.05]). Among those who were not sexually active, having a desire for casual sex was not associated with lower self-esteem.

To investigate H1b, Relative to men who report having had regular sex or casual sex during the last year, do men reporting little to no sexual activity also report lower positive mood scores? I regressed celibacy on positive mood in men. There was an effect of celibacy on positive mood, b = -0.34, (95% CI [-0.52, -0.22], $\beta = -.15$). On average, men who did not have sex the last six months report 0.34 units lower positive mood than those who did. The model explained a significant proportion of variance in men's positive mood scores. $R^2 = .03$, F(1, 490)=9.64, p = .002.

To investigate H1c, Relative to men, do women overall report more negative mood? I regressed sex on negative mood. There was an effect of sex on Negative mood, b = -0.25 (95% CI [-0.38, -0.12], $\beta = -.12$). On average, men scored 0.25 points lower on Negative mood than women. Sex explained a significant proportion of variance in negative mood scores, $R^2 = .015$, F(1,896) = 13.92, p < .001.

To test H1d, Do participants who increase sexual activity from T1 to T2 report higher self-esteem and higher score on positive mood feelings, and is the reverse also true? I ran multilevel regression models with sexual status as predictor, participant as grouping variable,

sex as covariate, and self-esteem or positive mood as outcome variables in separate models. The results from the longitudinal model showed that within-person change in sexual status was associated with changes in self-esteem, b=0.13 (95% CI [0.05, 0.22]), which means that individuals had lower self-esteem while celibate. Likewise, in the model with positive mood as outcome, change in sexual status predicted changes in positive mood, b=0.30 (95% CI [0.14, 0.45]), in that individuals had less positive mood while celibate.

To test H1e, Relative to men, do women who increase sexual activity from T1 to T2 not report higher self-esteem or mood? I checked for an interaction between sexual status and sex. The within-person change in sexual status had a larger effect on self-esteem for men, although this difference was not significant, b=0.12 (95% CI [-0.05, 0.28]). Similarly, changes in sexual status did not have a larger effect on positive mood for men, b=0.02 (95% CI [-0.29, 0.32]). In other words, women and men did not differ in their reported self-esteem or positive mood after increasing sexual activity.

3.2 Sexual activity, perceptions of women's casual sex and proneness to anger

To investigate H2a Do men reporting little to no sex, who also report perceptions of women's promiscuity, report more anger as measured by the Proneness to anger scale (Sell et al., 2009) I regressed celibacy on anger, with an interaction between celibacy and log-transformed men's estimation of number of women's yearly sex partners. There was no significant interaction, b = 0.13, (95% CI [-0.56, 0.81]), and the model did not explain a significant proportion of variance in anger. Testing for different operationalizations of "perceptions of women's promiscuity", I ran a regression with an interaction between celibacy and perceptions of how easy it is for women to find a sex partner. The interaction was not significant, b = -0.08, (95% CI [-0.28, 0.11]), and the model did not explain a significant proportion of variance in anger.

To test H2b Do changes in sexual activity from T1 to T2 relate to changes in anger (i.e., increase in sexual activity resulting in reporting less anger, and vice versa), I ran a multilevel regression model with sexual status as predictor, participant as grouping variable, sex as covariate, and anger as outcome. The results from the longitudinal model showed that within-person change in sexual status was associated with changes in anger, b=0.09 (95% CI [0.01, 0.18]), in that individuals were less prone to anger while celibate. Next, I checked for an interaction. The within-person change in sexual status did not have a larger effect on anger

for men, b=-0.08 (95% CI [-0.25, 0.10]). In other words, changes in sexual activity did not produce a different effect on anger for men and women.

3.3 Relationship status satisfaction, mood and self-esteem

To test H3a, Relative to those in a relationship, do participants who report being single also report more dissatisfaction with their relationship status?, I regressed Singlehood on relationship status satisfaction. Being single negatively predicted relationship status satisfaction, b= -1.53, (95% CI [-0.30, -0.26]), β = -.60. In other words, singles were less satisfied with their status. Relationship status explained a significant proportion of variance in relationship status satisfaction, R^2 = .36, F(1,891) = 500.16, p < .001. Next, I extended the investigation longitudinally by testing whether changes in relationship status would predict changes in satisfaction. The results from the longitudinal model showed that within-person change in relationship status was associated with changes in relationship status satisfaction, b=1.47 (95% CI [1.33, 1.61]), in that individuals reported less satisfaction when single.

To test H3b, *Do participants who report dissatisfaction with being single also report lower self-esteem and more negative mood?*, I restricted analyses to those who were dissatisfied with their relationship status, defined as not reporting being very or somewhat satisfied (n=342). I regressed *singlehood* on self-esteem, selected for those who reported dissatisfaction with relationship status. Among those dissatisfied with their relationship status, being single did not predict self-esteem, b= 0.02, (95% CI [-0.22, 0.25]), β = .01. The model was not significant. Next, I regressed *singlehood* on *negative mood*. Being single was associated with reporting more negative mood, b=0.39 (95% CI [0.10, 0.67]), β = .16. Among those dissatisfied with their relationship status, those who were single reported on average 0.39 units more negative mood than those who were not single. Being single explained a significant proportion of variance in negative mood, R^2 = .02, F(1,338) = 7.03, P < .001.

To test H3c, Relative to women who have a long-term partner, do women unable to obtain long-term partner also report lower self-esteem and more negative mood? I regressed involuntary singlehood on self-esteem in women. The analysis showed that involuntary singlehood was significantly negatively associated with self-esteem in women, b = -0.20, (95% CI [-0.38, -0.02]), $\beta = -1.12$. Women who were unable to obtain a long-term partner reported 0.20 units less self-esteem than those in a relationship. The model was significant, $R^2 = .01$, F(1,296) = 4.75, p = .03. Involuntary singlehood was not significantly associated with negative mood in women, b = 0.01, (95% CI [-0.27, 0.30]), $\beta = -.01$, meaning that being

unable to obtain a long-term partner did not predict increased negative mood scores in women. The model was not significant. Exploratory analyses showed a significant interaction with sex for self-esteem, b = -0.32, (95% CI [-0.56, -0.07]), meaning that involuntary singlehood had a larger effect on self-esteem for men. There was no similar interaction with sex for positive mood.

Finally, to test H3d, *Do participants who report dissatisfaction with current relationship status and who change relationship status from T1 to T2 report higher self-esteem and more positive mood?*, I restricted analyses to those who reported dissatisfaction at T1 (n=125). I ran multilevel regression models with relationship status as predictor, participant as grouping variable, and either self-esteem or positive mood as outcomes in separate models. The results from the longitudinal model predicting self-esteem showed that within-person change in relationship status (entering or exiting a relationship) was not associated with changes in self-esteem, b=0.08 (95% CI [-0.07, 0.24]). For positive mood, within-person change in committed relationship status was associated with changes in positive mood, b=0.35 (95% CI [0.02, 0.67]), in that individuals reported less positive mood when single. Exploratory analyses showed a no significant interactions with sex for positive mood or self-esteem, meaning that similar effects were observed in both sexes.

4 Discussion

Based on evolutionary informed theories, I derived 17 hypotheses on the emotional effects of celibacy and singlehood. Of these, eleven were supported (see Table 1). Here, I will discuss the respective effects of sexual and relationship status on self-esteem and mood, then relationship status dissatisfaction and anger, while highlighting some theoretical and measurement strengths and limitations of the present study.

Sexual status and effects on self-esteem

In total, four out of seven hypotheses on self-esteem were supported. Consistent with the existence of a mating sociometer that calibrates feelings of self-esteem to sociosexual experiences among men (Kirkpatrick & Ellis, 2003; Schmitt & Jonason, 2019), self-esteem was lower for men who did not have sex (H1a). This finding corroborates previous studies on unmated men (Zhou & Hesketh, 2017), and adds further evidence that self-esteem is a sociometric gauge of one's romantic partner value and should be extra sensitive to sexual

rejection (Pass et al., 2010). Additionally, previous research often focused on number of sexual partners (relevant for sociosexuality) instead of on whether or not participants were having sex (Penke & Denissen, 2008). The present study shows that sexual activity regardless of number of partners is associated with self-esteem.

Contrary to expectations, this effect was not larger for those who pursued a short-term strategy (H1ai). This is surprising, because unsuccessfully pursuing short-term strategies was expected to affect self-esteem (Penke & Denissen, 2008; Schmitt & Jonason, 2019). The finding indicates that an unrestricted sociosexual orientation does not configure the self-esteem sociometer to be particularly sensitive to sexual activity, at least not presence or absence of sex within the last six months. In other words, contrary to prior assumptions, the self-esteem of those desiring sexual variety is not more adversely affected in the absence of sex. Generally, short-term strategies may be opportunistic and not mutually inconsistent with long-term strategies (Gangestad & Simpson, 2000). Thus, it is not surprising if those who seek short-term relations but struggle to find even one sex partner should focus just as much, if not more, on finding a longer-term partner. Whether being an unsuccessful short-term strategist upregulates desires to commit, and whether relevant decisions depend on the sociometer, is unknown. Therefore, examining emotional effects dependent on preferred sexual strategies is an interesting avenue for future research. Possibly, sociosexuality could be more affected by self-esteem than the reverse.

An important strength of this study is its within-person longitudinal analyses. Nevertheless, the findings need to be interpreted with caution. Only a few people entered or exited celibacy during the study period, resulting in wide confidence intervals. With that in mind, self-esteem changed for those who changed sexual status (H1d) but did not change more for women than men with changes in sexual status (H1e). This means the effect is within-person, and less likely to be confounded by some third variable. The finding supports the hypothesis that sexual activity changes should not be more related to self-esteem among women. However, prior expectations indicated that because they have less to gain on using self-perceived mate value and status in order to determine mating decisions, the sociometer should be less attuned to sociosexual experiences in women (Penke & Denissen, 2008). Thus, the effect should be even larger for men, which was interestingly not the case. I return to the lack of sex differences below.

It is worth noting that the relationship between self-esteem and sexual behavior is inconsistent in prior studies as well. In a systematic review of sexual behavior in teenagers, 62% of studies find no significant association with self-esteem, 25% found a negative relationship, and 14% a positive relationship (Goodson, Buhi, & Dunsmore, 2006). Although individuals in these studies were substantially younger, these findings are suggestive. Furthermore, the inconsistency could indicate a need to evaluate whether global measures such as the Rosenberg Self-Esteem scale (RSES) are as relevant in the sexual domain. Possibly, a more domain-specific mating sociometer and hence more specific measures could be relevant here, as previous work using general measures often find weak associations (Schmitt & Jonason, 2019). Indeed, several lines of evidence favor different sociometers tracking romantic relationship value versus for example friendship value (Brase & Guy, 2004; Gentile et al., 2009; Kavanagh, Fletcher, & Ellis, 2014; Kavanagh et al., 2010).

Relationship status and self-esteem

Contrary to expectations, among those who were dissatisfied with relationship status, singles did not report lower self-esteem (H3b). Consistent with this, assuming that dissatisfied singlehood is caused by rejection, some previous results fail to find an association between romantic rejection and decrease in self-esteem (Blackhart, Nelson, Knowles, & Baumeister, 2009). Perhaps both those dissatisfied with singlehood and those dissatisfied with relationships experience rejection and devaluation by potential or actual partners. However, long-term partnering might not be equally self-esteem relevant for both sexes. As expected, involuntarily single women reported lower self-esteem than those who were not (H3c). This appears contrary to the finding of dissatisfied singles not generally reporting lower self-esteem (H3b). However, in the former test, the criterion was six months single or more, whereas the latter had no singlehood duration criteria. Explorations showed that involuntary single men reported even lower self-esteem, which contrary to prior expectations indicates that lack of long-term partnering might be more self-esteem relevant for men, who also have much to gain on being partnered.

The causes of involuntarily singlehood among women might be several: they may have few options, or they may have plenty of suitors but await one who lives up to their high standards (Apostolou, 2021; Apostolou & Wang, 2019). Worse, some may experience sexual deception—desiring long-term commitment, while their suitors seek short-term mating. To adjudicate between these possibilities, and examine whether emotional effects depend on the

cause, future studies should consider taking into account self-perceived mating market rejection.

Among individuals reporting relationship status dissatisfaction, within-person change in relationship status did not predict changes in self-esteem above chance (H3d). Notably, prior longitudinal studies find that self-esteem is upregulated for those entering relationships (Luciano & Orth, 2017). Within-person changes in relationship status did predict changes in mood, which extends the findings of relationships predicting more positive mood. That both self-esteem and positive mood were not jointly regulated is surprising. Perhaps those dissatisfied with their relationship status and who exit the relationship do so of their own choosing, and not because they are rejected or devalued by their partner.

In all, most but not all hypotheses were supported, which highlight the need to further study self-esteem as a consequence of interindividual interactions in the mating domain. Based on the considerations and findings of this study, future research should expect to find that mating-relevant self-esteem should be downregulated in those rejected or devalued for their desirability as a partner (by valuable potential romantic and sexual partners), especially among men lacking relationship partners.

Sexual status and effects on mood

In total, six out of seven hypotheses on mood were supported. Cross-sectionally, celibate men reported lower positive mood than sexually active men (H1b). The longitudinal finding of changes in positive mood for those who changed their sexual status (H1d) shows that this is a within-person effect and not mere selection bias. These findings are consistent with a functional mood regulation system, which should increase feelings of pleasure and reward for actions that were fitness-promoting ancestrally, such as engaging in sex (Tooby & Cosmides, 2015) and, more specifically, escaping celibacy. In this study, those who did *not* had their positive mood downregulated. Surprisingly, there was no sex difference (H1e), which means the same pattern was observed among women as among men. In previous work, Kennair et al. (2016; 2018) found that men experience more gratification and less regret from casual sex than women, which suggested that women should experience less positive mood following changes in sexual status. Nevertheless, some work find that women and men are similar in their motivations to have casual sex, and suggest that the causal link runs from inferior well-being to casual sex, especially for those hooking up for nonautonomous reasons

(Vrangalova, 2015), which may be consistent with the present findings as sex differences were absent.

As mentioned, positive mood did not change among women more than men who change sexual status (H1e). According to the hypothesis, women should at least not report more positive mood than men, but the present findings indicate that women report about the same levels of positive mood. This is somewhat consistent with previous findings on sexual regret, where women more than men experience less positive and more negative emotions following casual sex (Kennair et al., 2016; Townsend & Wasserman, 2011). However, the present data did not show that women experience less positive mood than men as a consequence of sexual regret. Although the question here pertained generally to having sex or not, an interesting direction for future research would be to tease out possible different effects of engaging in relatively uncommitted sexual relationships compared to sex in the early stages of a more committed relationship. As with many of the questions under consideration here, such sub-group analyses would require a substantially larger sample size.

Further, the study investigated within-person effects of sexual status on mood, which showed that those who changed sexual status subsequently reported changes in positive mood (H1d). Continuing to be in celibacy is likely not a good state to be in, and the effect found for both men and women can be interpreted to mean that remaining celibate downregulates positive mood. The finding of lower positive mood in men (H1b) bolsters this claim, and test of interactions revealed no sex differentiated effects. However, the longitudinal analyses had low power and wide confidence intervals and should therefore be interpreted with caution. Nevertheless, consistent with functional models that highlight how progress towards some goal or lack thereof regulates mood (Nesse, 2019), this finding corroborates that having access to sex regulates mood systems. The system should further be expected to upregulate positive mood for some duration of time for individuals escaping celibacy, then downregulate mood if individuals subsequently re-enter celibacy.

Supporting general sex differences in negative mood, women scored higher than men overall, regardless of specific experiences (H1c). This replicates previous well-established findings and is therefore not surprising. For a proposed explanation relating to bargaining power, and promising directions for future research, see Hagen & Rosenström (2016) and Kerry & Murray (2021)

Relationship status and effects on mood

Results were not consistent for both self-esteem and mood: Those who were single and dissatisfied with relationship status reported more negative mood (H3b), but not lower self-esteem. Contrary to expectations, involuntarily single women did not report more negative mood compared to those partnered (H3c). This is possibly consistent with some previous findings of rejection (including romantic rejection) not generally predicting increases in distress (Blackhart et al., 2009). Even though this evidence is admittedly indirect, a possibility is that romantically rejected individuals react less with distress and negative mood when they have social support networks, buffering against effects of romantic rejection.

Although effects on self-esteem and mood were jointly supported for most hypotheses, interestingly, effects on mood and self-esteem did not consistently vary together between testing H3c and H3d. Under sociometer theory, self-esteem should function as a gauge of one's social inclusion which employs negative affect to motivate corrective action when one is devalued in the eyes of others (Kirkpatrick & Ellis, 2003). If robust, these findings further support that mood and self-esteem are connected but distinct mechanisms serving different functions.

Consistent with expectations, within-person changes in relationship status among dissatisfied participants predicted changes in positive mood (H3d). This is a stronger test of the expected causal relationship, and the result thus extends previous findings on the subjectively rewarding effects of relationships (Poortman & Liefbroer, 2010). Explorations showed no sex difference on self-esteem or positive mood, which means that men and women report similarly lower positive mood and self-esteem when single. That the mood system should make people feel rewarded when in relationships is expected, as pair-bonds were fitness promoting ancestrally (Buss & Schmitt, 2019).

There might be several reasons why sexual and relational experience did not regulate mood in all contexts, especially for involuntarily single women (H3c). Sexual activity predicts positive affect, but this association might be mediated by affection (Debrot, Meuwly, Muise, Impett, & Schoebi, 2017). It could be that for some, the degree of affection and commitment within a relationship could contribute relatively more to determine positive affect and mood. Additionally, sexual satisfaction, and not just sexual frequency, might be important in regulating desire for a relationship. Sexual satisfaction predicts greater well-being with singlehood and less desire for a partner, even after controlling for sexual frequency (Park,

Impett, & MacDonald, 2021). Perhaps, if singles achieve sexual satisfaction, their lack of a committed relationship becomes less relevant.

Romantic relationship satisfaction

As expected, those who were single reported less satisfaction with their relationship status (H3a). This meshes with findings of singles generally reporting more romantic loneliness and less life satisfaction, especially among those who desire a relationship (Adamczyk, 2016; Kislev, 2021), and contradicts others (Adamczyk & Segrin, 2015). Overall, this finding is consistent with much prior evidence and is as such not as surprising. To extend these findings, future studies should consider measuring life satisfaction as well.

Sexual status and effects on anger

Contrary to expectations, there was no evidence that men who did not have sex during the last six months and perceived women to be promiscuous reported being more prone to anger (H2a). I also found that within-person changes in sexual status were related to changes in anger (H2b), in that individuals were somewhat *less* angry when celibate. Interestingly, explorations showed that the effects of changes in sexual status were the same for men and women. As before, effective sample size was relatively small for these analyses, and the question thus remains whether those who increase their sexual activity subsequently downregulate their anger, and more specifically, anger targeted at opposite sex members.

Under the expectation that the anger system should (1) react to unwanted treatment in the mating market and (2) take into account the actor's perceived value of sex as a commodity, the present findings are surprising. It is possible that men who lack sexual access are not generally more prone to anger. An important caveat is that *Proneness to anger* (Sell et al., 2009) measures general tendencies to anger, and it would perhaps be less advantageous for celibate (and probably less attractive and formidable) men to generally anger easily. More physically formidable and socially dominant men should generally be more prone to anger, because formidability helps resolve conflicts in favor of the more formidable individual (Sell et al., 2009; but see Nguyen, Petersen, Nafziger & Koch, 2020). Prior research find that men who are physically and socially dominant (toward other men) are also more attractive to women (Ellis, 1992), and thus perhaps less likely to be celibate. Stronger men and more attractive women are generally more prone to anger and have higher levels of entitlement, at least among young adults (Price, Dunn, Hopkins, & Kang, 2012), perhaps due to the intense

competition of the mate search phase of this life-stage. Thus, celibate men should probably not be angrier in general.

If men in celibacy experience more anger despite my findings, it is possibly a more specific and directed anger, as opposed to a general proneness to anger. For those with less bargaining power, which might be the case for celibate men, such anger could turn into hatred toward women (Sell & Lopez, 2020). Thus, it is possible that the predictions of the recalibrational theory of anger still hold true, which should be tested in future studies with more specific measures of anger in relation to opposite-sex members. Therefore, a prediction for future studies is that sexually rejected individuals might display anger towards opposite-sex individuals, but not anger more easily outside the sexual and romantic relationship domain. Further, the more bargaining power the individual has in the face of rejection, the angrier the individual could allow him or herself to become.

Perceptions of promiscuity did not predict more anger among celibate men (H2a). Prior research on perceived promiscuity is scant, but suggested that men's perceptions of the value of sex should affect their beliefs and emotions: When experimentally led to believe in widespread female promiscuity, sociosexually restricted men increase their preference for traditional relationship norms (Luberti, 2020). As noted, perhaps unsuccessful unrestricted men should subsequently become more restricted and increase their preference for committed pair-bonds, possibly depending on the local prevalence of mating strategies such as promiscuity. However, the operationalization of "perceptions of promiscuity" in the present study was somewhat crude. This hypothesis should ideally be investigated with better measures in an experimental setting, where both sexual rejection and the perceived value of sex could be manipulated in order to search for causal effects on anger responses. If the theory is correct, perceptions of promiscuity should cause sexually rejected men to anger more, depending on bargaining power.

Generally, it is possible to be in a state of involuntary celibacy and singlehood for several different reasons (Apostolou, 2021; Donnelly & Burgess, 2008), and it is also possible to execute several different strategies to deal with the problem, for example becoming angry or giving up. Causes include for example, not being physically attractive to the other sex (which males place a premium on in short- and long-term mates) or not having markers of possessing resources or resource acquisition potential (which females place a premium on in long-term mates). These would in many cases require different solutions. For example, the

problem of not being chosen due to a lack of status or resources might be solved by joining the most formidable coalition that will have the individual as a member, but the problem of not being chosen due to being physically unattractive has a separate solution, such as enhancing one's physical appearance. Different solutions could mean that different emotions and motivations should be expected depending on the cause and context, because what would count as adaptive behavior in solving one problem does not necessarily solve others. As Tooby & Cosmides (2015) note: "Distinct and incommensurable evolved motivational principles exist for food, sexual attraction, mate acquisition, parenting...and scores of other entities, conditions, acts, and relationships." (p. 55).

Most generally, we should expect emotion programs to upregulate motivations to find a mate. Some problems are more pressing than others, and the mind should therefore have systems for learning what is most pressing at the time (reminiscent of a hierarchy of needs, see Kenrick et al., 2010). In this respect, the psychological mechanisms considered here are learning mechanisms: they should learn about the state of the individual (in this case the state of being celibate or single) and further motivate actions that were probabilistically associated over evolutionary time with ending this state. When the problem is dealt with, they should upregulate rewarding feelings (such as positive mood) and downregulate aversive feelings. Whether this is a specific system or a subcomponent of a system that operates on a more general class of problems, and what other mechanisms this system communicates with, is currently unknown. One proposal, which this study attempted to investigate, is that the system in some circumstances deploys anger in order to bargain for better treatment in the mating market. Although effects on anger were inconclusive, this study did find that mood and self-esteem were downregulated in some contexts, and upregulated with changes in important life circumstances.

Another strategy for those struggling in the mating market is widening one's mate search, by upregulating the perceived attractiveness of others (or lowering standards) and downregulating one's own perceived mate value. Mate value may then be linked to the internal regulatory variable self-esteem. Consistent with this, self-reported attractiveness and self-esteem correlated strongly albeit imperfectly (r= .43), consistent with previous findings (Brase & Guy, 2004). In other words, those who consider themselves less attractive have lower self-esteem, perhaps adaptively calibrating their aspirations.

Overall, few sex differences were found. When celibate or involuntarily single, both men and women report lower self-esteem and less positive mood. Although more men than women were in celibacy or outside relationships, the findings indicate that largely similar processes operate for men and women when involuntary single and/or celibate. Sexual conflict leads to different problems and sources of conflict for the sexes, as expected by strategic interference theory, but both sexes should experience negative emotions as a result of strategic interference. In this study, when faced with the same problem of lacking long-term or sexual partners, emotional effects were similar for the sexes.

Importantly, psychological mechanisms, including those comprising our mating psychology, are known to operate differently depending on the local social ecology (Buss & Schmitt, 2019). As an example, jealousy responses vary across cultures with the degree of male parental investment (Scelza et al., 2020). Similarly, it is probable that the anger responses considered here should vary with ecological conditions, such that for example males may be able to get away with deploying more anger toward women in more patriarchal contexts where the relative bargaining power of males is greater.

Of note, the present effects were found in a highly egalitarian society, namely Norway. While women in Norway are relatively more liberated compared to other countries, sexual reputation concerns still play a role and predicts women's casual sex regret (Kennair et al., 2016). Perhaps worry about sexual reputation affects sexual decisions and subsequent emotional effects. Overall, however, the present findings highlight the similarities of men and women when faced with the same problems and circumstances.

4.1 Strengths and limitations

Prior to this study, the psychological effects of lacking sexual or romantic relationships remained relatively understudied. Some indications were given by correlational studies where for example never-married men reported lower mood, less self-esteem and more anger (Zhou & Hesketh, 2017). The present study, with its longitudinal design, aimed to investigate whether similar psychological consequences could be found among a normal population of students. Within-person changes would indicate specific psychological mechanisms tracking specific circumstances and experiences of individuals, regulating their emotional experiences.

The major strength of this study is its longitudinal design enabling tests of within-person effects, licensing stronger inferences about the emotional consequences of celibacy and singlehood. Nevertheless, the study is still fundamentally correlational and as such is limited in what causal inferences can be drawn from it. For instance, do those who lack romantic and sexual relationships also lack social support and relationships more broadly? Single people in general are probably not lonelier (Adamczyk, 2016), but the group of individuals unable to obtain sexual and romantic relationships might be systematically different. For instance, among single men, those who lack sexual access are less socially advantaged (Shuzhuo et al., 2010). Confounds should be less of a problem in within-person analyses, but nevertheless, such interconnected problems should be investigated in follow-up work, with improved measurements to make sure findings relate to lack of sexual and relationship status as such.

Despite a relatively large sample size compared to other studies, the effective sample sizes in this study were quite small because few individuals changed their sexual or relationship status. A larger sample size would allow sub-group analyses such as whether those specifically seeking sex or relationships are more impacted by celibacy or singlehood, and conversely whether they report larger gains by entering sexual or romantic relationships. Further, this study only gathered data twice about three months apart, which limited the number of people who were discordant on sexual and relationship status. In a future study, more robust evidence could be gathered with more waves of data over longer time, thus being able to detect whether for example self-esteem fluctuates consistently with being able to attract sexual or relationship partners.

There are several possible explanations for the inconsistent findings: (1) there is in actuality no effect, (2) there is an effect, but the study was underpowered to detect it, and (3) there is an effect, but theoretical constructs were not captured by the measurements. Regarding the latter, several questions could have been more precise. For example, the operational definition and measurement of "unable to obtain long-term partnerships" may have been too imprecise, because it assumed that being single and expressing dissatisfaction reflected a desire for long-term relationships. Similarly, "perceptions of promiscuity" could have been more precisely measured than estimated yearly sex partners. Relatedly, other answers might have been obtained with direct questions of participant sexual activity since last questionnaire, and avoiding asking remembered elapsed time since last intercourse, which easily falls prey to misremembering. Future research should strive to obtain more direct

indications of inability despite pursuit. Additionally, the suggested and admittedly arbitrary threshold of six months could be unrealistic. Future studies should capture long-term effects of involuntary celibacy and singlehood, and further check for differences with voluntary celibacy and singlehood.

The Brief Mood Introspection Scale (BMIS) measures current mood, while the effects of lacking sexual and romantic relationships might manifest as more enduring tendencies to consistently report lower emotional states. For instance, some previous work on interpersonal rejection and mood show negligible effects on the BMIS but negative effects on the Positive and negative Affect Schedule (PANAS)(Gerber & Wheeler, 2009). To investigate the robustness of the present findings, future studies could profitably apply different measures of negative emotions coupled with more waves of data.

Although self-report often works reasonably well, there are also well known discrepancies between self-reported and actual behavior, perhaps because of distortive sources such as social motives or misremembering (Stephens-Davidowitz, 2017). This might be relevant, as some completed the questionnaire in an auditorium with fellow students. Also, informal comments during distribution and completion indicated that some found the questionnaire quite long, which could have affected reporting and follow-up participation willingness. Extra questionnaire items were thought needed to disguise the purpose of the study, but this possibly trades off against validity and follow-up participation willingness. Follow-up research should seek to go beyond self-report and cross-check for consistency with this measurement method.

Finally, as with much research on mating, this sample consists of individuals that might not be representative for the rest of humanity along the variables of interest (Goetz, Pillsworth, Buss, & Conroy-Beam, 2019; Henrich, Heine, & Norenzayan, 2010). Especially the fact that the sample consisted mostly of university students might limit generalizability. Those who remain without romantic or sexual partners are more often less educated (Zhou et al., 2013), but the effects of education might be different for men and women: experimental results indicate that unattractive, less educated men and unattractive, highly educated women are more likely to remain single (Egebark, Ekström, Plug, & van Praag, 2021). Further, the findings do not necessarily generalize to older populations (Davies, 1995). Mating market dynamics and resultant psychological consequences could be quite different during the most

intense mating competition phase of young adulthood. Future studies should ideally include larger samples from more diverse populations.

4.2 Implications and future directions

There is a critical need to fill the knowledge gap on effects of lacking sexual and romantic relationships, as these states have large potential ramifications for human suffering and well-being. In extension, there is a need to study the anger and negative emotions expressed by a community of involuntary celibate men. Research on this phenomenon has begun (Burgess, Donnelly, Dillard, & Davis, 2001; Donnelly et al., 2001; Ging, 2017; Hoffman, Ware, & Shapiro, 2020; Karlen, 2019; O'Malley et al., 2020), but there is still a need for more.

How would one proceed in a principled way to discover neurocognitive programs serving adaptive functions, in this case for navigating one class of situations in the mating market? One should start with asking what the specific adaptive problem is, and what information is available for solving said problem (i.e., what could a well-designed program given the suggested adaptive function look like). Then one should hypothesize about what programs evolved in actuality, and then conduct tests of the program's design features (Tooby & Cosmides, 2015). Without imposing constraints from knowledge about computationally and biologically plausible psychological mechanisms, the space of plausible hypotheses is truly vast. By providing empirical data on the associations between mating success and psychology, this study contributes to further narrow the space of plausible hypotheses about the relationship between sexual and romantic relationship activity and psychological and emotional mechanisms.

An obvious next step is to investigate what strategies individuals marginalized in the mating market subsequently deploy to overcome their state. Such individuals might experience their self-esteem and their moods downregulated, and some might anger, but because emotions function to motivate action, what specific behavioral strategies are subsequently deployed? Relevant psychological mechanisms should be highly sensitive to context, motivating learning and deployment of contextually effective strategies taking trade-offs into account. Further research fleshing out the detailed computational structure and design features of mate search and choice mechanisms (e.g. Conroy-Beam, 2021; Miller & Todd, 1998) would be of high scientific importance in order to understand possible strategies of those marginalized in the mating market.

More detailed knowledge of mechanisms in our mating psychology would enable future studies to be even more explicit about and test hypothesized causal mechanisms. Possibly, men and women are more affected in their self-esteem and mood depending on the specific forms of sexual and romantic rejection they experience, in other words, depending on the specific reasons for their being in involuntary celibacy or singlehood. Future studies would be well-advised to study these dynamics in a broader population sample, and ideally cross-culturally, with older age groups as well.

5 Conclusion

Research on human mating has focused relatively more on those who have than those who have not. The goal of this study thus centered on documenting whether lack of sexual and romantic relationships regulates important emotional variables. Based on sexual conflict and strategic interference theories, it was expected that men would experience decreases in positive mood when celibate, and subsequently increase mood when escaping celibacy. Women were expected to decrease positive mood when involuntarily single, and experience increases when entering relationships.

The results showed that emotional variables were regulated within-persons, and that there were few sex differentiated effects on the emotional variables. This indicates that when men and women find themselves in similar circumstances, they experience and report mostly similar downregulations of mood, self-esteem, and no changes in proneness to anger. Both sexes were dissatisfied when single, and both experienced positive mood when escaping celibacy. Women and men were however not equally likely to be in celibacy or outside relationships: more men than women were celibate or single. The findings highlight that, while sources of strategic interference might on average differ, the sexes are similar in their emotional reactions when faced with the same problem, at least within this domain.

Emotional processes might be similar for men and women in this context, but that does not necessarily mean that men and women should subsequently act similarly. Possibly, the effects of low mood could motivate different actions among men than among women. Similarly, for self-esteem, perhaps men subsequently engage in types of status contests or joins some relevant group attempting to increase their esteem in the eyes of others. The formation of groups among involuntary celibates, raging about their positions in the mating market as *incels*, may reflect strategies to compensate for their situation. What other strategies

men and women subsequently deploy to overcome the states of involuntary singlehood and celibacy is currently unknown; task analyses of these problems should open up interesting and fruitful avenues for future research.

Overall, this study provides novel findings by documenting associations between sexual and/or relationship status and self-esteem, mood and anger. To mitigate the problems and alleviate the pain expressed by individuals in this neglected area of human suffering, follow-up research is needed. This study provides clear directions for future research, with revised theory and new predictions for further illuminating the psychology of those marginalized in the mating market.

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Appendix A – Tables

Table A1

No

Yes

		Women			Men			
	T1		T2		T1		T2	
	Mean (SD)	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)	n
Age	21.9 (3.24)	408	22.1 (3.01)	275	22.9 (4.89)	488	23 (4.19)	289
Months sex	2.37 (6.84)	357	1.38 (4.74)	251	4.2 (12.52)	422	3.97 (14.37)	249
SOI	4.01 (1.59)	409	4.13 (1.53)	276	4.73 (1.56)	494	4.65 (1.55)	29
RSES	3.05 (0.98)	406	3.53 (0.70)	275	3.72 (0.71)	488	3.78 (0.70)	288
PM	4.57 (0.98)	406	4.42 (1.00)	275	4.37 (1.04)	490	4.33 (1.11)	289
NM	3.38 (0.79)	406	3.22 (1.05)	275	3.13 (0.98)	490	2.89 (0.99)	28
PTA	3.85 (0.79)	409	3.82 (0.79)	276	3.69 (0.72)	494	3.61 (0.72)	29
Relationship status								
1		72		55		70		53
2		100		78		106		66
3		55		29		30		17
4		14		11		14		9
5		6		7		4		3
6		14		13		12		10
7		67		28		94		41
8		81		55		166		91

Note: Relationship status: 1 = Married/cohabitant, 2 = Boy-/girlfriend, 3 = Long distance relationship with boy-/girlfriend, 4 = Sexual partner with commitment, 5 = Sexual partner without commitment, 6 = "Friends with benefits", 7 = Single but occassional one night stands, 8 = Single

24

252

69

427

41

249

Table A2 Sexual and relationship status at T1 and T2

31

375

Sexually active	No _{T2}	Yes_{T2}	No _{T2}	Yes _{T2}
No _{T1}	29	11	62	8
Yes _{T1}	18	216	18	199
Relationship	No_{T2}	Yes_{T2}	No _{T2}	Yes_{T2}
No_{T1}	96	15	138	19
Yes_{T1}	7	158	7	126

H1a-ai

Table A3

Not having had sex last six months and SOI regressed on self-esteem in men

				95% CI		
	b	SE	t	Lower	Upper	
Model 1						
No sex six months	-0.31	0.08	-4.16	-0.46	-0.16	
Intercept	3.81	0.04	108.56	3.74	3.88	
Model 2						
Sixmonths	-0.34	0.80	-4.22	-0.50	-0.18	
SOI	-0.19	0.22	-0.86	-0.06	0.02	
Intercept	3.90	0.11	33.35	3.68	4.14	
Model 3						
Sixmonths	-0.02	0.25	-0.08	-0.51	0.47	
SOI	0.00	0.02	-0.04	-0.05	0.05	
Sixmonths*SOI	-0.08	0.06	-1.31	-0.20	0.04	
Intercept	3.81	0.12	31.05	3.58	4.05	

H₁b

Table A4

No sex in six months regressed on positive mood in men

			95%	% CI		
	b	SE	t	Lower	Upper	β
Model 1						
Months	-0.34	0.11	-3.10	-0.55	-0.12	15
Intercept	4.47	0.05	85.04	4.37	4.58	

H1c

Table A5Participant sex regressed on negative mood

		95% CI					
	b	SE	t	Lower	Upper	β	
Model 1							
Sex	-0.25	0.07	-3.73	-0.38	-0.12	12	
Intercept	3.38	0.05	67.12	3.28	3.48		

Note: 0=women, 1=men

Table A6

Multilevel regression model predicting self-esteem								
Fixed effects	Coef.	SE	Lower	Upper				
Sexual status	0.13	0.04	0.05	0.22				
Sex	0.27	0.06	0.16	0.38				
Intercept	3.13	0.10	2.94	3.24				
Estimation of variance c	omponents							
Random effect	Variance	SE						
Intercept	0.41	0.03	0.36	0.47				
Residual	0.07	0.00	0.06	0.08				

Table A7

Multilevel regression model predicting positive mood							
Fixed effects	Coef.	SE	Lower	Upper			
Sexual status	0.30	0.08	0.14	0.45			
Sex	-0.07	0.08	-0.23	0.08			
Intercept	4.33	0.15	4.04	4.61			
Estimation of variance co	emponents						
Random effect	Variance	SE					
Intercept	0.67	0.05	0.58	0.79			
Residual	0.39	0.02	0.35	0.44			

H1e

Table A8

Multilevel regression model predicting self-esteem

Withhever regression moder predicting sen-esteem							
Fixed effects	Coef.	SE	Lower	Upper			
Sexual status	-0.04	0.13	-0.30	0.22			
Sex	0.18	0.09	0.01	0.35			
Sexual status*sex	0.12	0.08	-0.05	0.28			
Intercept	3.27	0.14	3.00	3.55			
Estimation of variance	components						
Random effect	Variance	SE					
Intercept	0.41	0.03	0.36	0.47			
Residual	0.07	0.00	0.06	0.08			

Table A9

Multilevel regression model predicting positive mood								
Fixed effects	Coef.	SE	Lower	Upper				
Sexual status	0.27	0.26	-0.23	0.78				
Sex	-0.09	0.15	-0.38	0.20				
Sexual status*sex	0.02	0.16	-0.29	0.32				
Intercept	4.35	0.25	3.86	4.83				
Estimation of variance	components							
Random effect	Variance	SE						
Intercept	0.67	0.05	0.57	0.78				
Residual	0.39	0.02	0.35	0.44				

H2a Table A10

No sex last six months and perceptions of womens promiscuity regressed on anger in men

				95% CI			
	b	SE	t	Lower	Upper		
Model 1							
Sixmonths	-0.18	0.08	-2.13	-0.35	-0.01		
Percieved wsex	0.03	0.17	0.18	-0.31	0.38		
Intercept	3.73	0.10	37.12	3.53	3.92		
Model 1							
Sixmonths	-0.23	0.17	-1.34	-0.58	0.11		
Percieved wsex	-0.04	0.25	-0.15	-0.53	0.45		
Sixmonths*percieved wsex	0.13	0.35	0.36	-0.56	0.81		
Intercept	3.76	0.13	29.49	3.51	4.01		

Note: Perceptions of promiscuity was log-transformed. Number of estimated yearly partners

H2b Table A11

Multilaval	ragraggian	modal	nradicting	Ongor
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Fixed effects	Coef.	SE	Lower	Upper
Sexual status	0.09	0.05	0.01	0.18
Sex	-0.19	0.06	-0.31	-0.07
Intercept	3.94	0.11	3.73	4.15
Estimation of variance c	omponents			
Random effect	Variance	SE		
Intercept	0.50	0.03	0.44	0.57
Residual	0.08	0.00	0.07	0.09

Table A12

Multilevel regression model predicting anger

Fixed effects	Coef.	SE	Lower	Upper
Sexual status	0.21	0.15	-0.07	0.49
Sex	-0.13	0.09	-0.31	0.06
Sexual status*sex	-0.08	0.09	-0.25	0.10
Intercept	3.84	0.15	3.54	4.15
Estimation of variance of	components			
Random effect	Variance	SE		
Intercept	0.50	0.03	0.44	0.57
Residual	0.08	0.00	0.07	0.09

H3a

Table A13

Singlehood regressed on relationship status satisfaction

			95% CI				
	b	SE	t	Lower	Upper	β	
Model 1							
Singlehood	-1.55	0.07	-22.36	-1.68	-1.41	60	
Intercept	4.51	0.04	93.27	4.42	4.60		

Note: 0 = relationship, 1 = single

Table A14

Multilevel regression model predicting relationship satisfaction

		•		
Fixed effects	Coef.	SE	Lower	Upper
Relationship status	1.47	0.07	1.33	1.61
Sex	-0.05	0.07	-0.20	0.09
Intercept	3.08	0.13	2.84	3.33
Estimation of variance c	omponents			
Random effect	Variance	SE		
Intercept	0.40	0.05	0.32	0.51
Residual	0.66	0.04	0.59	0.74

Table A15
Singlehood regressed on negative mood among those dissatisfied

			95% CI				
	b	SE	t	Lower	Upper	β	
Model 1							
Singlehood	0.39	0.15	2.65	0.09	0.67	.16	
Intercept	3.32	0.06	56.43	3.2	3.43		

Note: 0 = relationship, 1 = single

Table A16
Singlehood regressed on self-esteem among those dissatisfied

			95%	% CI	
b	SE	t	Lower	Upper	β
0.02	0.12	0.14	-0.21	0.24	.01
3.44	0.04	80.14	3.36	3.53	
	0.02	0.02 0.12	0.02 0.12 0.14	b SE t Lower 0.02 0.12 0.14 -0.21	0.02 0.12 0.14 -0.21 0.24

Note: 0 = relationship, 1 = single

H3c
Table A17
Involuntary singlehood regressed on negative mood in women

			95% CI					
	b	SE	t	Lower	Upper	β		
Model 1								
InSingle	0.01	0.14	0.09	0.27	0.29	01		
Intercept	3.37	0.07	50.88	3.24	3.50			

Note: 0 = relationship, 1 = more than six months single and dissatisfied

Table A18

Involuntary singlehood regressed on self-esteem in women

				95% CI				
	b	SE	t	Lower	Upper	β		
Model 1								
InSingle	-0.20	0.09	-2.18	-0.38	-0.02	12		
Intercept	3.54	0.04	78.90	3.45	3.63			

Note: 0 = relationship, 1 = more than six months singel and dissatisfied

Table A19
Involuntary singlehood, sex and their interaction regressed on self-esteem

				95%	CI		
	b	SE	t	Lower	Upper	β	
Model 1							
InSingle	-0.39	0.06	-5.99	-0.51	-0.26	24	
Sex	0.24	0.05	4.29	0.13	0.34	.17	
Intercept	3.34	0.09	37.75	3.17	3.52		
Model 2							
InSingle	-0.20	0.09	-2.18	-0.38	-0.02	12	
Sex	0.31	0.06	5.00	0.19	0.44	.22	
InSingle*Sex	-0.32	0.12	-2.49	-0.56	-0.07	17	
Intercept	3.54	0.04	78.91	3.45	3.63		

Note: 0 = relationship, 1 = more than six months singel and dissatisfied

H3d

Table A20

Multilevel regression model predicting self-esteem

with the ver regression in	ioder predicting sen-estee	7111		
Fixed effects	Coef.	SE	Lower	Upper
Relationship status	0.08	0.08	-0.07	0.24
Sex	0.13	0.13	-0.12	0.38
Intercept	3.20	0.21	2.80	3.61
Estimation of variance	components			
Random effect	Variance	SE		
Intercept	0.46	0.06	0.35	0.60
Residual	0.07	0.01	0.06	0.10

Note: selected among those reporting dissatisfaction at T1 (n=125)

Table A21

Multilevel regression model predicting positive mood					
Fixed effects	Coef.	SE	Lower	Upper	
Relationship status	0.35	0.17	0.02	0.67	
Sex	-0.38	0.18	-0.73	-0.03	
Intercept	4.67	0.29	4.10	5.25	
Estimation of variance components					
Random effect	Variance	SE			
Intercept	0.75	0.13	0.53	1.05	
Residual	0.47	0.06	0.37	0.61	

Note: selected among those reporting dissatisfaction at T1 (n=125)

Appendix B: Approval by NSD

Melding 22.11.2019 09:04

Det innsendte meldeskjemaet med referansekode 832141 er nå vurdert av NSD.

Følgende vurdering er gitt:

Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet den 22.11.19 med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde: nsd.no/personvernombud/meld prosjekt/meld endringer.html

Du må vente på svar fra NSD før endringen gjennomføres.

TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle særlige kategorier av personopplysninger om helseforhold og om seksuelle forhold eller orientering, samt alminnelige kategorier av personopplysninger frem til 01.06.20.

LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 nr. 11 og art. 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake.

Lovlig grunnlag for behandlingen vil dermed være den registrertes uttrykkelige samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a, jf. art. 9 nr. 2 bokstav a, jf. personopplysningsloven § 10, jf. § 9 (2).

PERSONVERNPRINSIPPER

NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: åpenhet (art. 12), informasjon (art. 13), innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), underretning (art. 19), dataportabilitet (art. 20).

NSD vurderer at informasjonen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER

NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

SelectSurvey er databehandler i prosjektet. NSD legger til grunn at behandlingen oppfyller kravene til bruk av databehandler, jf. art 28 og 29.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og eventuelt rådføre dere med behandlingsansvarlig institusjon.

OPPFØLGING AV PROSJEKTET

NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

Kontaktperson hos NSD: Silje Fjelberg Opsvik Tlf. Personverntjenester: 55 58 21 17 (tast 1)



Informasjon

Formålet med denne spørreundersøkelsen er å studere kvinner og menns seksuelle opplevelser og holdninger, nåtidige følelser, og faktorer som kan påvirke disse. Å delta innebærer at du besvarer et nettbasert spørreskjema én eller to ganger, nå og om ca. 4 måneder. Noen av spørsmålene berører følsomme tema knyttet til seksuelle handlinger og valg. For enkelte kan det å besvare spørreskjemaet medføre en viss grad av ubehag og sjenanse, og vi anbefaler alle deltakere å sitte i skjermede omgivelser når man besvarer spørsmålene. Det er ingen «rette» eller «gale» svar på spørsmålene i dette skjemaet, det er dine egne meninger og synspunkter vi er interessert i. Den enkelte deltaker vil ikke kunne gjenkjennes i publikasjoner av funnene.

Premietrekning: Alle som fyller ut spørreskjemaet to ganger har mulighet til å være med i trekningen av en iPad, Galaxy eller annen tablet av verdi opp til Kr. 4000.

Undersøkelsen foregår i to runder. På slutten av spørreskjemaet blir du bedt om å oppgi din e-postadresse. Denne trenger vi for å kunne sende deg invitasjon til runde 2 i løpet av ca. 4 måneder. E-postadressene vil bare bli brukt å sende invitasjon, til å kople dine svar i runde 1 og 2, og til premietrekningen, og de vil bli slettet fra datamaterialet når datainnsamlingen avsluttes, senest innen utgangen av august 2020

Bortsett fra e-postadressen registreres ingen personidentifiserende opplysninger. Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke personopplysninger som er registrert om deg,
- å få rettet personopplysninger om deg,
- få slettet personopplysninger om deg,
- få utlevert en kopi av dine personopplysninger (dataportabilitet), og
- å sende klage til personvernombudet eller Datatilsynet om behandlingen av dine personopplysninger.

Hva gir oss rett til å behandle personopplysninger om deg? Vi behandler opplysninger om deg basert på ditt samtykke.

NTNU er behandlingsansvarlig for undersøkelsen, og NTNUs personvernombud er Thomas Helgesen (tlf. 930 79 038).

Det er helt frivillig å delta i prosjektet, og du kan når som helst trekke deg eller avbryte uten å måtte begrunne dette nærmere. Det har ingen konsekvenser for deg. Det tar rundt 10 minutter å besvare spørsmålene. Du samtykker i å delta ved å klikke på «Ferdig» på siste side i skjemaet. Hvis du har spørsmål til studien, eller ønsker å benytte deg av dine rettigheter, ta kontakt med: Mons Bendixen (tlf. 73 59 74 84) eller Leif Edward Ottesen Kennair (tlf. 73 59 19 56) ved Institutt for psykologi, NTNU.

På oppdrag fra NTNU har Norsk senter for forskningsdata (NSD) vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Med vennlig hilsen

Per Helge H. Larsen, masterstudent Mons Bendixen, førsteamanuensis Leif Edward Ottesen Kennair, professor Institutt for psykologi, NTNU



	Om deg selv		
1.	NB: Vennligst besvar alle spørsmålene i én økt. Du må starte på nytt dersom du avbryte 1. Hva er ditt kjønn? C Kvinne C Mann C Annet/annen oppfatning av kjønn	r underveis.	
2.	2. Hvor gammel er du?		
3.	Neva er din nåværende sivilstatus?* Velg det som passer best. Dette spørsmålet må besvares, fordi svaret avgjør hvilke spørsmål du Gift/samboer Kjæreste Avstandsforhold med kjæreste Fast seksualpartner med forpliktelse (eksklusivitet) Fast seksualpartner uten forpliktelse (åpent seksuelt forhold) Kfriends with benefits» Singel, men har «one night stands» av og til Singel	u får senere.	
4.	4. Svært Litt	Litt	Svært
	Verken/e misfornøyd misfornøyd	ller fornøyd	fornøyd
	Hvor fornøyd er du med din nåværende sivilstatus?	O	0
5.	5. Hvor mange forpliktende forhold har du vært i totalt? NB: Hvis du er i et forpliktende for dette også.* Dette spørsmålet må besvares, fordi svaret avgjør hvilke spørsmål du får senere.	hold nå, regne	er du med
5.	6. Hvem er du seksuelt tiltrukket av? © Bare menn © Mest menn © Menn og kvinner like mye © Mest kvinner © Bare kvinner © Ingen/vet ikke © Personer (kjønn er ikke viktig for meg)		
7.	7. Har du debutert seksuelt (hatt samleie)?*		





	Til deg som ikke er i et forpliktende forhold nå, men har hatt tidligere
8.	Hvor lenge er det siden <i>det siste</i> forpliktende forholdet du var i tok slutt? Vennligst oppgi antall år og måneder. Vær nøye med å skrive tallene i rett felt. År: Måneder:
9.	Hvor lenge hadde det forholdet vart da det tok slutt? Vennligst oppgi antall år og måneder. Vær nøye med å skrive tallene i rett felt. År: Måneder:



Oppfatninger om relasjoner, seksualitet og kjønnsroller

орришшээг ош г	J. 1.0.5 J. 1.1.0.1	, , ,		9,	
Om ditt nåværende forhold					
10. Hvilket kjønn har din nåværende partner?					
○ Mann					
C Kvinne					
C Annet/Annen oppfatning av kjønn					
11. Hvor lenge har forholdet vart?					
Vennligst oppgi antall år og måneder. Vær nøye med å skriv	e tallene i rett	felt.			
År:					
Måneder:					
12.					
	Ikke i det	I liten	Til en viss	l stor	l svært
	hele tatt	grad	grad	grad	stor grad
Hvor fornøyd er du med forholdet ditt?	C	C	C	C	C

	Hvor forpliktet er du til forholdet	ditt?			C	O	C		C	C
	Hvor intimt er forholdet ditt?				0	C	0		C	0
	Hvor mye stoler du på partnerer	n din?			O	0	O		0	O
	Hvor lidenskapelig er forholdet o	litt?			C	C	C		C	C
	Hvor mye elsker du partneren d	in?			C	\circ	0		C	C
13.		Aldri	Veldig sjelden	En gang hver 2- 3 mnd.	Ca. en gang pr. mnd.	Ca. en gang pr. 2. uke	Ca. en gang i uka	Flere ganger i uka	Nesten daglig	Minst én gang daglig
	Hvor ofte har du og partneren din sex?	0	0	O	0	0	0	0	C	O
	Hva er det ideelle antallet samleier i løpet av en vanlig uke for deg?	С	О	С	0	0	С	С	О	С



Om egen seksualitet

14. I hvilken grad stemmer hvert av disse utsagnene om egen seksualitet for deg?

	lkke i det	I liten	Til en viss	l stor	I svært
	hele tatt	grad	grad	grad	stor grad
Jeg er trygg på meg selv som seksualpartner	0	0	C	C	C
Jeg er bevisst på hva som motiverer meg seksuelt	\circ	\circ	C	\circ	\circ
Jeg har ved en eller flere anledninger tenkt at noe ved min seksualitet er unormalt	C	C	O	C	O
Jeg er en god seksualpartner	\circ	\circ	C	\circ	\circ
Jeg er motivert til å være seksuelt aktiv	0	0	С	0	0
Jeg engster meg når jeg tenker på det seksuelle aspektet av livet mitt	C	C	C	C	C
Det er viktig for meg å holde meg seksuelt aktiv	O	C	С	C	0
Jeg er skuffet over kvaliteten på sexlivet mitt	\circ	\circ	C	\circ	C
Jeg er bevisst på mine seksuelle følelser	C	C	C	C	C
Jeg er fornøyd med det seksuelle aspektet av livet mitt	0	C	C	C	C
Jeg er ikke fornøyd med mitt/mine seksuelle forhold	C	C	С	C	C
Jeg er for tiden fornøyd med hvordan mine seksuelle behov blir møtt	C	C	C	C	C
Jeg skulle ønske jeg hadde høyere sexlyst	C	C	C	C	C

15. Hvor lenge siden er det du sist hadde samleie? Vennligst oppgi antall år og måneder. Vær nøye med å skrive tallene i rett felt.

IN NYOL OOOL SIAMMAE NASIANAANA'							
l6. Hvor godt stemmer påstandene:	lkke i det	I liten		en viss	l stor		svært
	hele tatt	grad		rad	grad		r grad
Jeg har en sterk seksualdrift	0	0		0	0		0
Jeg tenker ofte på sex	0	0		0	0		O 2
Det skal ikke mye til før jeg blir seksuelt opphisset	0	0		0	0		0
Jeg tenker på sex nesten hver dag	0	0		0	0		0
Seksuell nytelse er den mest intense gleden man kan ha	О	O		0	C		C
Dersom du er i et forhold, hvor lett hadde det vært dersom Svært vanskelig/umulig Ganske vanskelig Litt vanskelig Litt lett Ganske lett Svært lett	uu vai siiigei	•					
18. Hvor enig eller uenig er du i følgende:							
18. Hvor enig eller uenig er du i følgende:	Helt	Ganske	Litt	Verken	Litt	Ganske	
l8. Hvor enig eller uenig er du i følgende:	uenig	uenig	uenig	/eller	enig	enig	Helt enig 7
	uenig 1	uenig 2	uenig 3	/eller 4	enig 5		
Personer jeg liker, synes å like meg tilbake	uenig 1	uenig 2	uenig 3	/eller 4	enig 5 C	enig 6	enig 7
Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg	uenig 1 C C	uenig 2 C	uenig 3 C	/eller 4 C	enig 5 C	enig 6 C	enig 7 C
Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg	uenig 1 C C	uenig 2 C C C	uenig 3 C C	/eller 4 C C C	enig 5 C C	enig 6 C C	enig 7 C C
Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre	uenig 1 C C C	uenig 2 C C C	uenig 3 C C C	/eller 4 C C C C	enig 5 C C C C	enig 6 C C C	enig 7 C C
Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg	uenig 1 C C C C C	uenig 2 C C C C C	uenig 3 C C C C C	/eller 4 C C C C C	enig 5 C C C C C	enig 6 C C C C C	enig 7 C C C
Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre	uenig 1 C C C C C C	uenig 2 C C C C C	uenig 3 C C C C C C	/eller 4 C C C C C C	enig 5 C C C C C C	enig 6 C C C C C	enig 7 C C C C C
Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre Jeg kan få så mange seksualpartnere som jeg ønsker	uenig 1 C C C C C C C C	uenig 2 C C C C C C	uenig 3 C C C C C C C C	/eller 4 C C C C C C C C	enig 5 C C C C C C C	enig 6 C C C C C C	enig 7 C C C C C C
Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre	uenig 1 C C C C C C	uenig 2 C C C C C	uenig 3 C C C C C C	/eller 4 C C C C C C	enig 5 C C C C C C	enig 6 C C C C C	enig 7 C C C C C C



Om sex og seksuell aktivitet

19. Vennligst svar så ærlig som mulig på de følgende spørsmålene

0 1 2 3 4 5-6 7-9 19 20+

	Hvor mange forskjellige partnere de siste 12 månedene?	har du	ı hatt sex	med	С	С	О	0	C	C	С	C	0
	Hvor mange forskjellige partnere med én og kun én gang?	har du	ı hatt san	nleie	С	С	C	0	C	0	С	C	С
	Hvor mange forskjellige partnere med uten at du har hatt interesse for et langvarig, forplikt vedkommende?				С	C	С	С	0	C	C	C	о о
	Ideelt sett, hvor mange NYE seks du tenkt deg å ha de neste 5 åre		tnere kui	nne	0	C	С	0	0	0	0	C	0
20.													
				Svært uenig 1	2	3	4		5	6	7	8	Svært enig 9
	Jeg vil ikke ha sex med en person sikker på at forholdet kommer til og varig	-	-	C	0	С	0	(С	0	0	O
	Sex uten kjærlighet er OK			\circ	O	C		(0	\circ	\mathbf{C}	O	0
	Jeg er komfortabel med tanken p uforpliktende sex med forskjellige			O	0	C	0	(0	С	0	0	O
21.													
		Aldri	Veldig sjelden	En gang hver 2- 3 mnd.	Ca. gang mr	g pr.	Ca. en gang pr. 2. uke	ga	. en ang uka	Flere gange i uka	r Nes	sten glig	Minst én gang daglig
	Hvor ofte fantaserer du om å ha sex med noen du ikke er i et forpliktende kjærlighetsforhold til?	О	О	С	C		С		0	C	(C
	Hvor ofte opplever du seksuell opphisselse når du er i kontakt med noen du ikke er i et forpliktende kjærlighetsforhold til?	О	0	С	C		C	(0	С	C		С
	I det daglige, hvor ofte opplever du spontane fantasier om sex med noen du nettopp har møtt?	С	О	С	C)	С	(0	0	()	С



	Oppfatninger om andres seksualliv	
22.		
	Hvor mange seksualpartnere tror du en gjennomsnittlig singel kvinne på din alder har hatt siste år?	

	nvor mange seksualpartnere tror du en gjenno	omsnittiig sii	igei maim p	a din alder n	ar natt s	siste ar?	
	Hvor mange seksualpartnere tror du en gjenno	omsnittlig sir	ngel kvinne _l	oå din alder	har hatt	totalt?	
	Hvor mange seksualpartnere tror du en gjenno	omsnittlig sii	ngel mann p	å din alder h	ar hatt t	otalt?	
23.							
		Svært					
		vanskelig	Ganske	Litt	Litt	Ganske	Svært
		/umulig	vanskelig	vanskelig	lett	lett	lett
	Hvor lett er det å finne seg en sexpartner for en gjennomsnittlig/typisk singel mann	0	О	O	C	C	0
	på din alder?						
	Hvor lett er det å finne seg en sexpartner for en gjennomsnittlig singel kvinne på din	0	0	C	0	C	0
	alder?					•	
	Hvor lett er det for en gjennomsnittlig mann på din alder å få seg kjæreste?	0	0	0	0	0	0
	Hvor lett er det for en gjennomsnittlig kvinne på din alder å få seg kjæreste?	С	С	C	0	C	C



Holdninger til kvinner og menn 24. I hvor stor grad er du enig eller uenig i disse påstandene? lkke i det I liten Til en viss I stor I svært hele tatt grad grad grad stor grad Når menn "hjelper" kvinner er det oftest for å bevise at de er bedre enn dem Kvinner prøver å oppnå makt ved å få kontroll over menn Enhver mann bør ha en kvinne han beundrer De fleste menn snakker om at de er for likestilling, men takler ikke å ha en kvinne som er likestilt De fleste kvinner tolker uskyldige bemerkninger eller handlinger som kjønnsdiskriminerende Menn bør være villige til å ofre helsen sin for å kunne forsørge kvinnen i sitt liv I bunn og grunn er de fleste menn for barn å regne Samme hvor dyktig en mann er, er han ikke en fullstendig person uten at han er elsket av en kvinne Når de er i posisjon til det vil de fleste menn trakassere kvinner seksuelt, om enn bare på mindre åpenlyse måter \Box Kvinner burde vernes om og beskyttes av menn Selv om begge parter i et parforhold er i arbeid, bør

kvinnen være mer oppmerksom på å ta vare på mannen sin hjemme	O	С	O	О	0
Enhver kvinne trenger en mannlig partner som beskytter henne	C	С	C	C	C
Mange kvinner søker faktisk særfordeler, f.eks. kjønnskvotering som favoriserer dem fremfor menn under dekke av å kalle det for "likestilling"	О	С	О	О	C
En kvinne vil aldri være tilfreds i livet hvis hun ikke har et forpliktende, langvarig forhold til en mann	C	С	C	C	C
Når kvinner taper i en rettferdig konkurranse med menn påstår de å ha blitt diskriminert	C	О	O	O	C
Enhver kvinne burde ha en mann hun beundrer	C	0	C	C	C



Om dine følelsesmessige reaksjor	ner						
. Hvor enig eller uenig er du i påstandene for tiden?							
	Svært uenig	Ganske uenig	Litt uenig	Verken eller	Litt enig	Ganske enig	Svært enig
Selv om jeg ikke faktisk gjør det, får jeg lyst til å slå folk som tror de er bedre enn meg	C	C	C	C	0	C	O
Jeg er en veldig munter person	0	\circ	0	\mathbf{C}	O	\circ	\circ
Folk som er konfronterende plager meg skikkelig	O	0	0	C	O	C	0
På en typisk dag er det mange hendelser som gjør meg glad	C	C	C	C	C	C	0
Det plager meg veldig hvis noen slipper unna med noe på min bekostning	C	C	C	0	0	C	0
Hvis noen fornærmer meg lar jeg det bare gå	\circ	\circ	O	\circ	O	\circ	O
Jeg er ofte overlykkelig når noe positivt skjer	O	0	0	0	O	0	O
Hvis noen sniker i trafikken blir jeg ikke sint	\circ	\circ	O	\circ	O	\circ	C
Sammenlignet med andre folk er det vanskeligere å få meg sint	C	C	C	C	0	C	О
Noen folk trenger rett og slett å bli jekket ned et hakk eller to	C	C	C	C	C	C	0
Jeg får ofte gledesutbrudd	O	0	O	C	O	C	C
Hvis noen dytter meg dytter jeg tilbake	\circ	\circ	O	\circ	O	\circ	C
Hvis noen lagde for mye støy i en kinosal og ødela opplevelsen for oss andre ville jeg bedt bråkmakeren om å holde kjeft	C	О	С	О	0	O	O
Jeg har kort lunte	O	\circ	O	\mathbf{C}	C	\circ	C
Jeg blir veldig sint når noen gjør narr av meg	O	0	O	O	O	0	O
Hvis noen fornærmer meg vil jeg som regel ikke si fra	C	C	C	C	O	C	0
Gode ting skjer meg hele tiden	C	C	C	C	C	C	O

	Hvis noen provoserer meg, ber jeg dem om å gi seg	C	C	C	O	C	(0	O
	Hvis noen sårer følelsene mine lar jeg det som regel gå	C	0	O	0	C	(0	O
	Hvis noen sniker i køen lar jeg det gå	C	\circ	0	O	C	(\circ	C
	Dersom en fremmed kom i skade for å fornærme meg, preller det som regel av	C	0	C	0	C	(0	C
	Noen ganger blir jeg så sint at jeg føler jeg mister kontrollen	C	0	0	0	C	(0	0
	Folk oppfører seg som idioter hele tiden	C	C	0	O	C	(0	C
	Folk irriterer meg ofte	\circ	\circ	\circ	O	O	(0	C
	Livet mitt blir stadig bedre	0	0	0	0	0	(O
26.			Мує			Like			Mye
			mind 1	re 2	3	mye 4	5	6	mer 7
	Hvor temperamentsfull er du (sammenlignet med venn samme kjønn)?	er av	O	C	0	O	0	0	С



Om egen selvfølelse og humør

Dette er den siste siden i undersøkelsen. Husk å trykke på *ferdig* nederst på siden slik at responsen din blir registrert.

27. Hvor enig eller uenig er du i følgende påstander:

	Svært uenig	Uenig	Verken eller	Enig	Svært enig
I det store og hele er jeg fornøyd med meg selv	C	C	C	C	C
Av og til synes jeg at jeg ikke er noe til tess i det hele tatt	\circ	\circ	\circ	O	\circ
I det store og hele er jeg fornøyd med kroppen min	0	0	0	0	0
Jeg synes jeg har mange gode kvaliteter	\circ	\circ	\circ	\circ	\circ
Jeg synes ikke jeg har mye å være stolt av	0	0	0	0	0
Jeg skulle ønske jeg kunne forandre mye ved utseendet mitt	\circ	\circ	\circ	\circ	\circ
Jeg kan utføre ting like bra som andre mennesker	0	0	0	0	0
Av og til føler jeg meg virkelig unyttig	\circ	\circ	O	O	\circ
Jeg mener jeg er verdt noe, i alle fall like mye som andre	0	0	0	0	0
I det store og hele er jeg fornøyd med utseendet mitt	\circ	\circ	\circ	\circ	\circ
Stort sett har jeg en tendens til å føle at jeg er mislykket	0	C	C	C	C
Jeg skulle ønske jeg kunne forandre mye ved kroppen min	\circ	\circ	\circ	C	\circ

28. I hvor stor grad føler du dette for tiden:

	Svært liten grad	Liten grad	Noen grad	Til en viss grad	Stor grad	Svært stor grad
Livlig	O	0	C	0	0	O
Rasende	\circ	\circ	\circ	\circ	O	O
Glad	C	C	C	C	C	C
Trist	\circ	\mathbf{c}	\circ	\circ	C	C
Omsorgsfull	O	C	C	C	C	C
Fornøyd	\circ	\mathbf{c}	\circ	\circ	C	C
Nedstemt	C	C	C	C	O	C
Anspent	\circ	\circ	\circ	\circ	C	0
Søvnig	C	C	C	C	C	C
Frustrert	\circ	\circ	\circ	\circ	C	0
Gretten	C	C	C	C	C	C
Energisk	\circ	\circ	\circ	\circ	C	0
Nervøs	O	C	C	C	C	C
Rolig	\circ	\mathbf{c}	\circ	C	C	C
Irritabel	C	C	C	C	C	C
Kjærlig	\circ	0	\circ	O	O	C
Lei	C	C	C	C	O	C
Aktiv	0	C	\circ	\circ	O	C

Ønsker du å delta i runde 2 av denne undersøkelsen, dvs. å besvare dette spørreskjemaet én gang til om ca. 4 måneder, vennligst skriv e-postadressen din i feltet nedenfor. Du må delta i begge rundene for å bli med i premietrekningen. E-postadressene vil bare bli brukt til å invitere deg til runde 2, til å kople svarene dine fra runde 1 og 2, og til premietrekningen.

29. Vennligst skriv e-postadressen din i feltet. Ønsker du ikke å delta i runde 2, lar du feltet stå tomt.

Du bekrefter at du ønsker å sende inn dine svar ved å trykke "ferdig". Dersom du har oppgitt epostadresse har du frem til sletting av epostadresser ved prosjektslutt mulighet til å trekke dine svar i etterkant ved å kontakte prosjektansvarlige.



Informasjon

Takk for at du er villig til å delta i andre og siste runde av undersøkelsen «Oppfatninger om relasjoner, seksualitet og kjønnsroller».

Formålet med denne spørreundersøkelsen er å studere kvinner og menns seksuelle opplevelser og holdninger, nåtidige følelser, og faktorer som kan påvirke disse. Noen av spørsmålene berører følsomme tema knyttet til seksuelle handlinger og valg. For enkelte kan det å besvare spørreskjemaet medføre en viss grad av ubehag og sjenanse, og vi anbefaler alle deltakere å sitte i skjermede omgivelser når man besvarer spørsmålene. Det er ingen «rette» eller «gale» svar på spørsmålene i dette skjemaet, det er dine egne meninger og synspunkter vi er interessert i. Den enkelte deltaker vil ikke kunne gjenkjennes i publikasjoner av funnene.

Premietrekning: Alle som fyller ut dette spørreskjemaet også har mulighet til å være med i trekningen av en iPad, Galaxy eller annen tablet av verdi opp til kr. 4000.

E-postadressene vil bli slettet fra datamaterialet når datainnsamlingen og premietrekningen er avsluttet, senest innen utgangen av august 2020.

Bortsett fra e-postadressen registreres ingen personidentifiserende opplysninger. Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke personopplysninger som er registrert om deg,
- å få rettet personopplysninger om deg,
- få slettet personopplysninger om deg,
- få utlevert en kopi av dine personopplysninger (dataportabilitet), og
- å sende klage til personvernombudet eller Datatilsynet om behandlingen av dine personopplysninger.

Vi behandler opplysninger om deg basert på ditt samtykke. NTNU er behandlingsansvarlig for undersøkelsen, og NTNUs personvernombud er Thomas Helgesen (tlf. 930 79 038).

Det er helt frivillig å delta i prosjektet, og du kan når som helst trekke deg eller avbryte uten å måtte begrunne dette nærmere. Det har ingen konsekvenser for deg. Det tar rundt 10 minutter å besvare spørsmålene. Du samtykker i å delta ved å klikke på «Ferdig» på siste side i skjemaet. Hvis du har spørsmål om studien, eller ønsker å benytte deg av dine rettigheter, ta kontakt med: Mons Bendixen (tlf. 73 59 74 84) eller Leif Edward Ottesen Kennair (tlf. 73 59 19 56) ved Institutt for psykologi, NTNU.

På oppdrag fra NTNU har Norsk senter for forskningsdata (NSD) vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Med vennlig hilsen

Per Helge H. Larsen, masterstudent Mons Bendixen, førsteamanuensis Leif Edward Ottesen Kennair, professor Institutt for psykologi, NTNU



1.	Om deg selv NB: Bryter du av underveis, kan du komme tilbake til di Hva er ditt kjønn? C Kvinne C Mann C Annet/annen oppfatning av kjønn	n besvarel	se ved å klikl	ce på lenken i	e-posten.	
2.	Hvor gammel er du?					
3.	Hva er din nåværende sivilstatus?* Velg det som passer best. Dette spørsmålet må besvares, fo C Gift/samboer C Kjæreste C Avstandsforhold med kjæreste C Fast seksualpartner med forpliktelse (eksklusivitet) C Fast seksualpartner uten forpliktelse (åpent seksuelt C «Friends with benefits» C Singel, men har «one night stands» av og til C Singel		vgjør hvilke s	oørsmål du får :	senere.	
4.	r	Svært misfornøyd	Litt misfornøyd	Verken/eller	Litt fornøyd	Svært fornøyd
	Hvor fornøyd er du med din nåværende sivilstatus?	O	0	О	О	0
5.	Hvor mange forpliktende forhold har du vært i totalt? Ni dette også.* Dette spørsmålet må besvares, fordi svaret avgjør hvilke sp			tende forhold	nå, regne	r du med
6.	Hvem er du seksuelt tiltrukket av? C Bare menn C Mest menn C Menn og kvinner like mye C Mest kvinner C Bare kvinner C Ingen/vet ikke C Personer (kjønn er ikke viktig for meg)					
7.	Har du debutert seksuelt (hatt samleie)?* Please Select ▼					



	Til deg som ikke er i et forpliktende forhold nå, men har hatt tidligere
8.	Hvor lenge er det siden <i>det siste</i> forpliktende forholdet du var i tok slutt? Vennligst oppgi antall år og måneder. Vær nøye med å skrive tallene i rett felt. År: Måneder:
9.	Hvor lenge hadde det forholdet vart da det tok slutt? Vennligst oppgi antall år og måneder. Vær nøye med å skrive tallene i rett felt. År: Måneder:

NTNU
Kunnskap for en bedre verden

□NTNU					
Kunnskap for en bedre verden Oppfatninger om re	lasjoner, se	eksual	itet og k	jønns	roller - :
Om ditt nåværende forhold					
10. Hvilket kjønn har din nåværende partner? C Mann C Kvinne C Annet/Annen oppfatning av kjønn					
11. Hvor lenge har forholdet vart? Vennligst oppgi antall år og måneder. Vær nøye med å	skrive tallene i rett	felt.			
År: Måneder:					
Måneder:	Ikke i det hele tatt	I liten grad	Til en viss grad	l stor grad	l svært stor grad
Måneder:					
Måneder: 12.	hele tatt	grad	grad	grad	stor grad
Måneder: 12. Hvor fornøyd er du med forholdet ditt?	hele tatt	grad	grad C	grad C	stor grad

	Hvor lidenskapelig er forholdet	ditt?			C	C	C		C	C
	Hvor mye elsker du partneren d	in?			0	\circ	0		C	C
13.										
		Aldri	Veldig sjelden	En gang hver 2- 3 mnd.	Ca. en gang pr. mnd.	Ca. en gang pr. 2. uke	Ca. en gang i uka	Flere ganger i uka	Nesten daglig	Minst én gang daglig
	Hvor ofte har du og partneren	C	C	C C	C C	C C	C	C	C	C
	din sex? Hva er det ideelle antallet samleier i løpet av en vanlig uke for deg?	0	0	0	0	0	0	0	C	С



Om egen seksualitet 14. I hvilken grad stemmer hvert av disse utsagnene om egen seksualitet for deg? Ikke i det I liten Til en viss I stor I svært hele tatt grad grad grad stor grad Jeg er trygg på meg selv som seksualpartner \circ Jeg er bevisst på hva som motiverer meg seksuelt Jeg har ved en eller flere anledninger tenkt at noe ved min seksualitet er unormalt Jeg er en god seksualpartner Jeg er motivert til å være seksuelt aktiv Jeg engster meg når jeg tenker på det seksuelle \bigcirc aspektet av livet mitt Det er viktig for meg å holde meg seksuelt aktiv Jeg er skuffet over kvaliteten på sexlivet mitt Jeg er bevisst på mine seksuelle følelser Jeg er fornøyd med det seksuelle aspektet av livet mitt Jeg er ikke fornøyd med mitt/mine seksuelle forhold Jeg er for tiden fornøyd med hvordan mine seksuelle behov blir møtt Jeg skulle ønske jeg hadde høyere sexlyst 15. Hvor lenge siden er det du sist hadde samleie? Vennligst oppgi antall år og måneder. Vær nøye med å skrive tallene i rett felt. År: Måneder:

Jeg har en sterk seksualdrift Jeg tenker ofte på sex Det skal ikke mye til før jeg blir seksuelt opphisset Jeg tenker på sex nesten hver dag Seksuell nytelse er den mest intense gleden man kan ha 17. Hvor lett er det for deg å finne en sexpartner hvis du hadde ønsket det? Dersom du er i et forhold, hvor lett hadde det vært dersom du var singel? C Svært vanskelig/umulig C Litt vanskelig C Litt vanskelig C Litt vanskelig C Litt lett C Ganske vanskelig P Litt vanskelig Andre er tiltrukket av meg Andre er tiltrukket av meg Jeg får seksuelle invitasjoner fra andre Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C	l svært
Jeg tenker ofte på sex Det skal ikke mye til før jeg blir seksuelt opphisset Jeg tenker på sex nesten hver dag Seksuell nytelse er den mest intense gleden man kan ha 17. Hvor lett er det for deg å finne en sexpartner hvis du hadde ønsket det? Dersom du er i et forhold, hvor lett hadde det vært dersom du var singel? Svært vanskelig/umulig Ganske vanskelig Litt vanskelig Litt lett Ganske lett Svært lett 18. Hvor enig eller uenig er du i følgende: Helt Ganske Litt Verken Litt Ganske uenig uenig venig	stor grad
Det skal ikke mye til før jeg blir seksuelt opphisset Jeg tenker på sex nesten hver dag Seksuell nytelse er den mest intense gleden man kan ha 17. Hvor lett er det for deg å finne en sexpartner hvis du hadde ønsket det? Dersom du er i et forhold, hvor lett hadde det vært dersom du var singel? Svært vanskelig/umulig Ganske vanskelig Litt vanskelig Litt vanskelig Litt verken Svært lett 18. Hvor enig eller uenig er du i følgende: Helt Ganske Litt Verken Litt Ganske uenig uenig venig venig enig enig 1 2 3 4 5 6 Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C C	C
Jeg tenker på sex nesten hver dag Seksuell nytelse er den mest intense gleden man kan ha 17. Hvor lett er det for deg å finne en sexpartner hvis du hadde ønsket det? Dersom du er i et forhold, hvor lett hadde det vært dersom du var singel? Svært vanskelig/umulig Ganske vanskelig Litt vanskelig Litt vanskelig Litt vanskelig Litt vanskelig Svært lett 18. Hvor enig eller uenig er du i følgende: Helt Ganske Litt Verken Litt Ganske uenig uenig venig venig venig enig enig enig enig Andre er tiltrukket av meg Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C C	0
Seksuell nytelse er den mest intense gleden man kan ha 17. Hvor lett er det for deg å finne en sexpartner hvis du hadde ønsket det? Dersom du er i et forhold, hvor lett hadde det vært dersom du var singel? C Svært vanskelig/umulig C Ganske vanskelig C Litt vanskelig C Litt vanskelig C Litt lett C Ganske lett Svært lett 18. Hvor enig eller uenig er du i følgende: Helt Ganske Litt Verken Litt Ganske uenig uenig /eller enig enig 1 2 3 4 5 6 6 Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C	O
kan ha 17. Hvor lett er det for deg å finne en sexpartner hvis du hadde ønsket det? Dersom du er i et forhold, hvor lett hadde det vært dersom du var singel? C Svært vanskelig/umulig C Ganske vanskelig C Litt vanskelig C Litt lett C Ganske lett Svært lett 18. Hvor enig eller uenig er du i følgende: Helt Ganske Litt Verken Litt Ganske uenig uenig venig venig venig enig enig enig had 5 6 Personer jeg liker, synes å like meg tilbake Andre er tiltrukket av meg Andre legger merke til meg Jeg får mange komplimenter fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C	О
Dersom du er i et forhold, hvor lett hadde det vært dersom du var singel? C Svært vanskelig/umulig C Ganske vanskelig C Litt vanskelig C Litt lett C Ganske lett C Svært lett 18. Hvor enig eller uenig er du i følgende: Helt Ganske Litt Verken Litt Ganske uenig uenig uenig venig venig enig enig enig enig far seksuelle invitasjoner fra andre Andre er ikke veldig tiltrukket av meg Jeg får seksuelle invitasjoner fra andre G C C C C C C C C C C C C C C C C C C	0
Helt Ganske Litt Verken Litt Ganske uenig uenig uenig venig /eller enig enig 1 2 3 4 5 6 Personer jeg liker, synes å like meg tilbake C C C C C C C C C C C C C C C C C C C	
ueniguenigueniguenig/ellerenig123456Personer jeg liker, synes å like meg tilbakeCCCCCAndre er tiltrukket av megCCCCCAndre legger merke til megCCCCCJeg får mange komplimenter fra andreCCCCCAndre er ikke veldig tiltrukket av megCCCCCJeg får seksuelle invitasjoner fra andreCCCCCJeg kan få så mange seksualpartnere som jeg ønskerCCCCC	ke Heli
Personer jeg liker, synes å like meg tilbake C C C C C C Andre er tiltrukket av meg C C C C C C Andre legger merke til meg C C C C C C Jeg får mange komplimenter fra andre C C C C C C Andre er ikke veldig tiltrukket av meg Deg får seksuelle invitasjoner fra andre C C C C C C Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C C C C C C C C C C C C C C	
Andre er tiltrukket av meg C C C C C C C C C C C C C C C C C C	7
Andre legger merke til meg C C C C C C C C C C C C C C C C C C	C
Jeg får mange komplimenter fra andre C C C C C Andre er ikke veldig tiltrukket av meg C C C C C C Jeg får seksuelle invitasjoner fra andre C C C C C C Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C	C
Andre er ikke veldig tiltrukket av meg O O O O O O O O O O O O O	C
Jeg får seksuelle invitasjoner fra andre C C C C C C Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C C	C
Jeg kan få så mange seksualpartnere som jeg ønsker C C C C C	C
Jog Han to be mange beneauper the beam jog zhone.	C
	C
Jeg mottar ikke mange komplimenter fra andre CCCCCC	C



	Om sex og seksuell aktivitet									
19.	Vennligst svar så ærlig som mulig på de følgende spørsr	nålene								
		0	1	2	3	4	5-6	7-9	10- 19	20+
	Hvor mange forskjellige partnere har du hatt sex med de siste 12 månedene?	О	О	О	С	О	С	О	C	С
	Hvor mange forskjellige partnere har du hatt samleie med én og kun én gang?	С	С	С	С	О	С	С	С	С

	Hvor mange forskjellige partnere med uten at du har hatt interesse for et langvarig, forplikt vedkommende?				C	С	C	0 0	0 0	C	C	0
	Ideelt sett, hvor mange NYE seks du tenkt deg å ha de neste 5 åre		tnere kur	ıne	O	0	C	0 0	0 0	0	C	0 0
20.				Croont								Corporet
				Svært uenig								Svært enig
				1	2	3	4	5	6	7	8	9
	Jeg vil ikke ha sex med en person sikker på at forholdet kommer til og varig			0	C	C	0	С	C	С	0	С
	Sex uten kjærlighet er OK			O	\circ	C	0	\circ	\circ	\circ	C	\circ
	Jeg er komfortabel med tanken puforpliktende sex med forskjellige			O	C	C	C	O	O	C	О	0
21.												
				En gang	Ca.	en	Ca. en	Ca. en	Flere			Minst
		Aldri	Veldig sjelden	hver 2- 3 mnd.	gang mn		gang pr. 2. uke		gangeı i uka	r Nes dag	ten glig	én gang daglig
	Hvor ofte fantaserer du om å	, and	Jjetae	3		iu.	2. 4.0	1 41.5	1 41.5	4~5	פייי	dagag
	ha sex med noen du ikke er i et forpliktende kjærlighetsforhold til?	С	0	C			C	O	C	C	5	O
	Hvor ofte opplever du seksuell opphisselse når du er i kontakt med noen du ikke er i et forpliktende kjærlighetsforhold til?	C	С	C	C		C	c	c	C)	С
	I det daglige, hvor ofte opplever du spontane fantasier om sex med noen du nettopp har møtt?	O	С	О	C		C	С	С	C	5	С



	Oppfatninger om andres seksualliv	
22.		
	Hvor mange seksualpartnere tror du en gjennomsnittlig singel kvinne på din alder har hatt siste år?	
	Hvor mange seksualpartnere tror du en gjennomsnittlig singel mann på din alder har hatt siste år?	
	Hvor mange seksualpartnere tror du en gjennomsnittlig singel kvinne på din alder har hatt totalt?	
	Hvor mange seksualpartnere tror du en gjennomsnittlig singel mann på din alder har hatt totalt?	

	Svært vanskelig /umulig	Ganske vanskelig	Litt vanskelig	Litt lett	Ganske lett	Svært lett
Hvor lett er det å finne seg en sexpartner for en gjennomsnittlig/typisk singel mann på din alder?	О	С	С	0	O	С
Hvor lett er det å finne seg en sexpartner for en gjennomsnittlig singel kvinne på din alder?	С	С	С	О	0	С
Hvor lett er det for en gjennomsnittlig mann på din alder å få seg kjæreste?	0	О	C	0	O	С
Hvor lett er det for en gjennomsnittlig kvinne på din alder å få seg kjæreste?	С	С	c	О	0	С



Holdninger til kvinner og menn 24. I hvor stor grad er du enig eller uenig i disse påstandene? Ikke i det I liten Til en viss I stor I svært hele tatt grad grad grad stor grad Når menn "hjelper" kvinner er det oftest for å bevise at de er bedre enn dem Kvinner prøver å oppnå makt ved å få kontroll over menn Enhver mann bør ha en kvinne han beundrer De fleste menn snakker om at de er for likestilling, men takler ikke å ha en kvinne som er likestilt De fleste kvinner tolker uskyldige bemerkninger eller handlinger som kjønnsdiskriminerende Menn bør være villige til å ofre helsen sin for å kunne forsørge kvinnen i sitt liv I bunn og grunn er de fleste menn for barn å regne Samme hvor dyktig en mann er, er han ikke en fullstendig person uten at han er elsket av en kvinne Når de er i posisjon til det vil de fleste menn trakassere kvinner seksuelt, om enn bare på mindre åpenlyse måter Kvinner burde vernes om og beskyttes av menn Selv om begge parter i et parforhold er i arbeid, bør kvinnen være mer oppmerksom på å ta vare på mannen sin hjemme Enhver kvinne trenger en mannlig partner som beskytter henne

Mange kvinner søker faktisk særfordeler, f.eks. kjønnskvotering som favoriserer dem fremfor menn under dekke av å kalle det for "likestilling"	C	0	0	0	0
En kvinne vil aldri være tilfreds i livet hvis hun ikke har et forpliktende, langvarig forhold til en mann	\circ	C	C	C	O
Når kvinner taper i en rettferdig konkurranse med menn påstår de å ha blitt diskriminert	C	C	C	C	O
Enhver kvinne burde ha en mann hun beundrer	C	C	C	C	C



Om dine følelsesmessige reaksjor	ner						
5. Hvor enig eller uenig er du i påstandene for tiden?							
	Svært uenig	Ganske uenig	Litt uenig	Verken eller	Litt enig	Ganske enig	Svært enig
Selv om jeg ikke faktisk gjør det, får jeg lyst til å slå folk som tror de er bedre enn meg	O	C	O	O	0	O	0
Jeg er en veldig munter person	O	O	O	O	C	\circ	C
Folk som er konfronterende plager meg skikkelig	0	0	O	0	C	O	0
På en typisk dag er det mange hendelser som gjør meg glad	C	O	O	O	O	C	O
Det plager meg veldig hvis noen slipper unna med noe på min bekostning	0	С	O	O	0	O	0
Hvis noen fornærmer meg lar jeg det bare gå	O	\circ	O	0	O	\circ	C
Jeg er ofte overlykkelig når noe positivt skjer	0	0	0	0	C	0	C
Hvis noen sniker i trafikken blir jeg ikke sint	O	\circ	O	0	O	\circ	\circ
Sammenlignet med andre folk er det vanskeligere å få meg sint	0	С	О	О	0	0	0
Noen folk trenger rett og slett å bli jekket ned et hakk eller to	C	C	С	С	0	C	0
Jeg får ofte gledesutbrudd	0	0	0	0	C	0	C
Hvis noen dytter meg dytter jeg tilbake	O	O	O	C	C	\circ	\circ
Hvis noen lagde for mye støy i en kinosal og ødela opplevelsen for oss andre ville jeg bedt bråkmakeren om å holde kjeft	O	O	O	O	C	O	C
Jeg har kort lunte	O	O	O	C	C	\circ	C
Jeg blir veldig sint når noen gjør narr av meg	C	0	C	0	C	O	C
Hvis noen fornærmer meg vil jeg som regel ikke si fra	C	O	С	С	O	C	O
Gode ting skjer meg hele tiden	O	0	C	0	C	O	C
Hvis noen provoserer meg, ber jeg dem om å gi seg	О	С	О	О	О	C	С
Hvis noen sårer følelsene mine lar jeg det som regel gå	О	О	О	О	O	O	0

	Hvis noen sniker i køen lar jeg det gå	C	C	C	C	C	(0	C
	Dersom en fremmed kom i skade for å fornærme meg, preller det som regel av	C	С	0	0	0	(0	0
	Noen ganger blir jeg så sint at jeg føler jeg mister kontrollen	C	C	0	0	C	(0	0
	Folk oppfører seg som idioter hele tiden	C	C	O	C	0	(0	O
	Folk irriterer meg ofte	0	C	C	\mathbf{C}	\mathbf{C}	(0	O
	Livet mitt blir stadig bedre	C	C	C	C	C	(C
26.			Mye mindre 1	2	3	Like mye 4	5	6	Mye mer 7
	Hvor temperamentsfull er du (sammenlignet med venner av samme kjønn)?			0	0	0	0	C	C



Om egen selvfølelse og humør

Dette er den siste siden i undersøkelsen. Husk å trykke på *ferdig* nederst på siden slik at responsen din blir registrert.

27. Hvor enig eller uenig er du i følgende påstander:

28. I hvor stor grad føler du dette for tiden:

	Svært uenig	Uenig	Verken eller	Enig	Svært enig
I det store og hele er jeg fornøyd med meg selv	C	C	C	C	C
Av og til synes jeg at jeg ikke er noe til tess i det hele tatt	0	\circ	C	\circ	\circ
I det store og hele er jeg fornøyd med kroppen min	C	C	C	C	C
Jeg synes jeg har mange gode kvaliteter	C	C	O	\circ	C
Jeg synes ikke jeg har mye å være stolt av	C	C	C	0	C
Jeg skulle ønske jeg kunne forandre mye ved utseendet mitt	C	C	O	\circ	C
Jeg kan utføre ting like bra som andre mennesker	C	C	C	0	C
Av og til føler jeg meg virkelig unyttig	C	C	O	0	C
Jeg mener jeg er verdt noe, i alle fall like mye som andre	C	C	C	0	C
I det store og hele er jeg fornøyd med utseendet mitt	C	C	O	O	C
Stort sett har jeg en tendens til å føle at jeg er mislykket	C	C	C	0	C
Jeg skulle ønske jeg kunne forandre mye ved kroppen min	С	О	С	C	C

Liten

Noen

Til en viss

Stor

Svært stor

Svært liten

	grad	grad	grad	grad	grad	grad
Livlig	O	C	0	O	С	O
Rasende	\circ	C	0	\circ	C	\circ
Glad	0	С	0	0	С	0
Trist	\circ	C	0	\circ	C	\circ
Omsorgsfull	0	C	0	0	С	0
Fornøyd	C	O	0	C	O	\circ
Nedstemt	O	C	0	C	C	O
Anspent	\circ	C	\circ	\circ	C	\circ
Søvnig	O	C	0	C	C	O
Frustrert	O	O	0	C	O	\circ
Gretten	O	C	0	C	C	O
Energisk	C	O	0	C	O	\circ
Nervøs	0	C	0	C	C	O
Rolig	C	O	0	\circ	O	\circ
Irritabel	0	C	0	C	C	C
Kjærlig	\circ	O	0	\circ	O	\circ
Lei	O	C	C	O	C	O
Aktiv	C	О	O	C	C	C

Vennligst klikk på «Ferdig» for å sende inn svarene dine.

NB: Ikke klikk på «Ferdig» før du er *helt* ferdig med å svare. Når du klikker på «Ferdig», stenges skjemaet.



