Predictors of Sexual Miscommunication in Adolescents

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Preface and Acknowledgments

The research questions were devised by the author in cooperation with supervisor Mons Bendixen. The data used in the article was collected by the supervisor as part of the "Health, Sexual Harassment and Experiences Study", and made available to the author for the present study. Analyses were performed by the author himself.

I have been interested in attitudes and stereotypes, and how these influence people's thoughts, feelings and behaviors. Sexual behavior and communication is a topic which to a large extent is associated with gender differences, and there are differing norms and expectations about how to behave with someone of the opposite (or same) gender. I wanted to investigate the behavioral patterns we engage in when it comes to sex, and to find out more about *why* we do what we do in those situations. Women and men behave so differently, or at least we think they do. But the truth is probably not as black and white as we think, and I find that very exciting. The work on this thesis helped me understand just a little bit more about why we behave like we do when it comes to sexual behavior and communication, and I hope someone else also finds some use of it as well.

I would like to thank my supervisor Mons Bendixen for invaluable help and admirable patience. After all, sex is a complicated and multifactorial field of study. I would also like to thank my parents, who contributed with amazing support and motivation during the writing process. Last, but definitely not least, I would like to thank my fantastic wife who offered support, but also made sure that I also had a life besides writing this thesis.

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Abstract

The purpose of the present study was to examine the sex differences in prevalence and what factors that contribute to miscommunication of sexual intention (i.e. use of token resistance and compliance with unwanted sex) among adolescents. A large and representative sample of high school students in Norway (N = 1531) responded to a questionnaire that included self-report of sexual miscommunication, as well as several measures of attitudes, behaviors and personality characteristics. Results: More women than men had used both forms of sexual communication during the last school year. Token resistance and sexual compliance were found to be associated with each other, suggesting that using one increases the likelihood of using the other form of miscommunication. Among both women and men, token resistance was predicted by stronger belief that token resistance is common among members of one's own sex. Attitudes related to traditional gender roles (sexism) and stereotypes about the rape of women did not predict sexual miscommunication over and above the contributions of behavioral and personality factors for either gender. The different dimensions of sociosexuality (i.e. interest in short-term sex) predicted both forms of sexual miscommunication for both women and men. Several behavioral factors also contributed to sexual miscommunication, and an interaction effect was found between frequency of alcohol consumption and relationship status. Findings are discussed with regard to possible explanations and theoretical implications.

Predictors of Sexual Miscommunication in Adolescents

In recent years, rape and consent to sexual activities have been a topic of relevance in Norway. A recent survey conducted for the Norwegian public broadcaster (NRK) by NORSTAT found that 20% of young people aged 17 – 24 years have participated in unwanted sexual activity (Gjellan, Aardal, Giæver, & Mon, 2017). Anti-rape campaigns have been prominent in the media such as Amnesty International's (2016) "No means no"-campaign, which has focused on consent and respecting refusal of sexual advances. The public debate has increasingly begun to revolve around the various gray areas of consent, such as instances where what is expressed is inconsistent with what a person really wants. This form of sexual communication may conceal sexual intention and make it harder to interpret whether consent is given for sexual activity or not and contribute to increased risk of unwanted sexual activities for the individual.

Adolescents go through a development period of life characterized by exploration of new experiences. Sex is a life area becoming increasingly important. Most young people become sexually active during this period (Træen, Štulhofer, & Landripet, 2011). During sexual bargaining, each party communicates his or her level of interest in the other. The communication is often ambiguous, and one's level of interest may be hidden by miscommunicating signals of sexual intention (i.e. whether they want to have sex with the other person or not; Grammer, Kruck, Juette, & Fink, 2000). Sexual miscommunication may go two ways: either expressing lack of interest while actually being interested, or expressing interest despite lack of interest. Hiding one's level of interest in a potential partner may have an adaptive function as a way to be in control during sexual bargaining and gain time to evaluate a partner (Buss & Schmitt, 1993; Grammer et al., 2000; Muehlenhard & Rodgers, 1998). However, researchers worry that sexual miscommunication may play a role in unwanted sexual experiences (e.g., Muehlenhard & Hollabaugh, 1988; Shotland & Hunter, 1995), and studies have found that miscommunication of sexual intention increases the likelihood of sexual victimization (Krahé, Scheinberger-Olwig, & Kolpin, 2000; Kuyper et al., 2013).

People declare several reasons for miscommunicating sexual intent. Some may falsely signal lack of desire for sex due to moral concerns and discomfort about sex, to add interest to an ongoing relationship, because they do not want to be taken for granted, to test a partner's response, or because of a desire for power and control (Muehlenhard & Rodgers, 1998). Some go along with unwanted sexual activity because they wish to satisfy a partner's needs, avoid tension in a relationship, or out of fear that the partner will leave or lose interest in them if

they don't agree to sex (O'Sullivan & Allgeier, 1998; Shotland & Hunter, 1995). Others engage in unwanted sex to gain sexual experience or approval from peers (Muehlenhard & Cook, 1988).

The present study explored different factors to see what would help predict the use of two types of sexual miscommunication: token resistance and sexual compliance.

Token Resistance

One way to miscommunicate sexual intention is through *token resistance*, which is defined as saying "no" to sex, while meaning "yes" (Muehlenhard & Hollabaugh, 1988). However, the use of token resistance does not require the user say "no" verbally, as sexual communication happens on both a verbal and non-verbal level (Fichten, Tagalakis, Judd, Wright, & Amsel, 1992). The construct applies to situations where a person in some way signals refusal to engage in a sexual activity, even though the person actually wanted and intended to have sex eventually. The use of token resistance is traditionally associated with women more than men. Due to a stereotype pertaining to the traditional gender role, women are expected to act resistant to men's sexual advances during sexual bargaining (Clark & Hatfield, 1989; Wiederman, 2005). However, research suggests that also men use token resistance (Muehlenhard & Rodgers, 1998; O'Sullivan & Allgeier, 1994; Sprecher, Hatfield, Cortese, Potapova, & Levitskaya, 1994).

Studies reporting on the prevalence of token resistance mainly follow the same method as the classic study on token resistance by Muehlenhard & Hollabaugh (1988). These studies ask the participants whether they have been in a situation where they wanted to have sex with a partner and had every intention of going through with it, but indicated that they did not want to engage in the activity (i.e. that they said "no", but meant "yes"). Some studies included only the question inquiring about token resistance (Sprecher et al., 1994). In many studies, the wording of the question is identical or very similar, and other scenarios are provided to help participants discriminate between token resistance and other forms of refusal (i.e. said "no" and meant "maybe", and said "no" and meant "no"; Krahé et al., 2000; Muehlenhard & Hollabaugh, 1988; O'Sullivan & Allgeier, 1994; Shotland & Hunter, 1995).

Some quantitative studies from the US on token resistance covered only female participants (Muehlenhard & Hollabaugh, 1988; Shotland & Hunter, 1995). Other studies included male participants (O'Sullivan & Allgeier, 1994; Sprecher et al., 1994) and participants from other countries (Krahé et al., 2000; Sprecher et al., 1994). Studies of young US participants report that 43-47% of men and 25-40% of women use token resistance,

suggesting a gender difference with higher prevalence among men (Muehlenhard & Hollabaugh, 1988; O'Sullivan & Allgeier, 1994; Shotland & Hunter, 1995; Sprecher et al., 1994). A cross-cultural study with participants from the US, Russia and Japan reported relatively high prevalence numbers in the Russian sample (53%). No significant gender difference was reported. In the Japanese sample, the prevalence numbers were low (30%) compared to the US and Russian sample. More women than men reported having used token resistance (37% and 21%, respectively; Sprecher et al., 1994). A German study reported that about half of the adolescents used token resistance, but found no gender differences (Krahé et al., 2000). These studies may point toward possible cross-cultural differences.

There are different challenges related to studying token resistance. Muehlenhard & Rodgers (1998) conducted a qualitative study where participants were asked to write narratives describing own experiences of token resistance. They found that many participants reported having said "no" while meaning "yes", but the narratives revealed that many had misinterpreted the question and described incidents that technically did not qualify as token resistance. Participants for example described situations where they wanted to have sex, but had no intention of going through with it, or incidents where they had wanted to have sex, but their partner didn't. After reanalyzing the data, the prevalence of token resistance dropped from 83% to 13% for men, and from 68% to 15% for women. Another challenge relates to participants who changed their mind at some point during the interaction with their partner. Sprecher et al. (1994) reported that 83% of those who reported using token resistance actually had meant "no" when they said "no", but had later changed their minds.

Sexual Compliance

Another form of sexual miscommunication concerns *consensual unwanted sex*, or *sexual compliance.* This is defined as consent to sexual activity despite a lack of desire to engage in the activity (Sprecher et al., 1994). A situation in which someone uses physical force or threats is not referred to as sexual compliance. However, some degree of psychological pressure is often present in cases of unwanted sex, blurring the lines between sexual compliance, coercion and rape (see Muehlenhard & Peterson, 2004).

Prevalence of sexual compliance usually varies from 30-47% depending on sample, method of measurement, gender, culture and age (Katz & Schneider, 2015; Krahé et al., 2000; O'Sullivan & Allgeier, 1998; Shotland & Hunter, 1995; Sprecher et al., 1994). Studies on gender differences have reported contradictory results; studies have found a higher prevalence among women than men in the US (Kalof, 1995; O'Sullivan & Allgeier, 1998; Sprecher et al.,

1994), but another study found no significant gender difference among Russian and Japanese participants, suggesting possible cultural differences in compliance (Sprecher et al., 1994).

The mean age varies in different study samples. Research investigating teenagers found a somewhat lower prevalence of sexual compliance (Kalof, 1995; Krahé et al., 2000) compared to samples of college students (Katz & Schneider, 2015; O'Sullivan & Allgeier, 1998; Shotland & Hunter, 1995; Sprecher et al., 1994). These age differences may be due to sexual experience, as younger participants may have experienced fewer incidents involving sexual bargaining. A study of adolescents including virgin participants reported lower prevalence (Kalof, 1995) as opposed to studies of adolescents including only non-virgin participants (e.g., Krahé et al., 2000).

Methodological differences may also influence the reported prevalence rates. Studies investigating compliance use a variation of a single item asking if participants have ever been in a situation where they consented to sex despite lack of desire (e.g., Shotland & Hunter, 1995). Some examine only compliance connected to sexual intercourse (e.g., Sprecher et al., 1994) whereas others examine compliance with all forms of sexual activity, including unwanted kissing and petting (e.g., Kalof, 1995). Data collection methods include both prospective measurements such as writing diaries across 2-3 weeks and retrospective measurements such as surveys investigating incidents of compliance or during lifespan (Kalof, 1995; O'Sullivan & Allgeier, 1998; Shortland & Hunter, 1995 Sprecher et al., 1994; Vannier & O'Sullivan, 2010).

Possible Predictors of Sexual Miscommunication

The inclination to obscure sexual intentions has traditionally been explained by traditional gender role attitudes (e.g., Muehlenhard & Hollabaugh, 1988), but unwanted sexual activity is relatively prevalent in Norway despite its high level of gender equality (United Nations [UN], 2016). This suggests that other attitudinal as well as personality and behavioral factors may contribute to the use of sexual miscommunication during sexual bargaining (e.g., Arnett, 1994; Buss & Schmitt, 1993; Cowan, Lee, Levy, & Snyder, 1988; Davis, George, & Norris, 2004). There may be different covariates and putative predictors of token resistance and compliance. These include attitudinal factors, behavioral factors and personality characteristics.

Attitudinal factors. Attitudes and beliefs are considered essential in predicting behavior (Ajzen & Fishbein, 2005), and expectations about how other people will behave in

certain situations is likely to influence one's own actions. A number of attitudes and beliefs are associated with sexual miscommunication.

The concept of token resistance is problematic as the assumption that it occurs frequently may cause some to ignore a partner's refusal to sex because they expect it to be insincere (Muehlenhard & Hollabaugh, 1988). Research has found that men who believe that women use token resistance are more likely to perpetrate sexual aggression (Krahé et al., 2000). One study found that men who believe that women sometimes use token resistance reported that a woman must verbally refuse sex two to three (2.6) times before the men would start to believe that her refusal was sincere (Mills & Granoff, 1992). Research also suggests an association between believing that token resistance is common and having used token resistance oneself (Krahé et al., 2000; Muehlenhard & Hollabaugh, 1988). In summary, believing that token resistance is common may be related to both higher incidence of using token resistance and unwanted sexual experiences.

Sexual interactions are traditionally thought to be influenced by traditional gender role beliefs (Wiederman, 2005). These beliefs form the basis of sexual scripts, which are acquired cognitive schemas that influence the interpretation of different sexual experiences (Gagnon, 1990; Simon & Gagnon, 1986; Wiederman, 2005). Once acquired through cultural influence, these scripts function as internalized assumptions about what thoughts, feelings and behaviors are considered normative, which then may influence one's own behavior (Gagnon, 1990). Adherence to sexist beliefs may result in moderation of one's own behavior with the intention to conform to established gender norms, and may be an underlying motive for miscommunicating sexual intent.

Traditional sexist gender stereotypes describe women and men as possessing different and complementary traits (Glick & Fiske, 1996, 1999, 2001). According to the traditional sexual script, women are expected to resist men's sexual approaches and not express sexual interest, while men are expected to make the first move and to persist in sexual advances despite a woman's refusal (Clark & Hatfield, 1989; Wiederman, 2005). This description matches the definition of token resistance, and Muehlenhard & Hollabaugh (1988) found that women who had used token resistance were more likely than others to endorse sexist attitudes. Adherence with traditional gender roles may influence some, especially women, to use token resistance as a way to manage one's sexual reputation among peers (Muehlenhard & Cook, 1988).

Adversarial beliefs about male-female relationships has also been linked with unwanted sexual activity (Muehlenhard & Cook, 1988). According to traditional gender roles,

8

the role of women is to be caring and put other people's needs over one's own (Eagly & Steffen, 1984). A woman who believes this may feel more obliged to comply with initially unwanted sexual activity. Traditional men may comply with unwanted sex to avoid having their masculinity questioned, as men are traditionally expected to actively seek out sexual opportunities with women (Lottes, 1993).

The belief that women use token resistance may be related to stereotypical beliefs about the rape of women (Garcia, 1998). The endorsement of such beliefs about rape, commonly referred to as "rape myth acceptance" (RMA), imply "*attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women*" (Lonsway & Fitzgerald, 1994, pp. 134). Common stereotypical beliefs about rape include both victim-blaming attitudes and excusing perpetrators of rape (Burt, 1980; Lonsway & Fitzgerald, 1994; McMahon & Farmer, 2011). People who endorse rape stereotypes may dismiss accusations of rape by claiming the victim either lied about being raped or that she in some way asked for it. They may also condone perpetrators' behavior by claiming the perpetrator did not mean to rape or that the incident in question in fact did not qualify as rape.

Strong links have been found between sexist attitudes toward women and acceptance of stereotypical beliefs about rape (Bendixen, Helle, Langbach, & Rasmussen, 2014; Bendixen, Henriksen, & Nøstdahl, 2014; Suarez & Gadalla, 2010). As previously mentioned, the belief that token resistance is a common behavior is associated with actually having engaged in token resistance (Muehlenhard & Hollabaugh, 1988). Because of the conceptual relationship between token resistance, RMA and sexism, it would be interesting to explore how these attitudes are linked to the use of sexual miscommunication.

Behavioral factors. Other potential correlates with sexual miscommunication include several behavioral factors. A study on Norwegian adolescents found that 27% of the participants who had one or more unwanted sexual experiences reported that alcohol was involved the first time it happened (Mossige & Huang, 2010). Studies have shown that early debut and high alcohol consumption increases the risk of sexual assault among adolescents (Pedersen & Skrondal, 1996). Alcohol consumption is assumed to play a part in increasing the likelihood of sexual miscommunication (Davis et al., 2004; Farris, Treat, & Viken, 2010). The effects of alcohol may include increased confidence and reduce concerns about sex (i.e. doubts about being ready, fear of pregnancy or contracting disease; Livingston, Bay-Cheng, Hequembourg, Testa, & Downs, 2013). Some adolescents report consuming alcohol deliberately to facilitate sexual exploration (Lindgren, Pantalone, Lewis, & George, 2009).

The frequency of which adolescents consume alcohol does not vary between women and men in Norway (Pedersen & von Soest, 2015), which indicates that alcohol consumption may play a similar role in sexual miscommunication among both sexes.

The use of pornography may also contribute to instances of sexual miscommunication, as pornographic material may portray a woman who initially refuses sexual advances from a man, but subsequently becomes sexually aroused when he ignores her refusal (Cowan et al., 1988). Different forms of aggression are prevalent in pornographic films (Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010). The target of aggression is most often women, and they are often portrayed as enjoying it. A high consumption of pornographic material may contribute to a normalization of male sexual dominance over women, which may lead some women to accept being subjected to unwanted sexual activity.

Personality factors. Variations in the incidence of sexual miscommunication within social and cultural groups may potentially be explained by differences in individual personality factors. Different traits may be associated with variations in motivation and differing approaches when engaging in sexual exploration.

Sexual Strategies Theory suggests that people pursue long-term and short-term mating strategies to a different degree (Buss & Schmitt, 1993). The variability in people's willingness to engage in short term sexual relationships is referred to as *sociosexuality* or *sociosexual orientation*. People who are more oriented toward unrestricted sociosexuality would typically be comfortable with engaging in sex without commitment compared to those who possess a more restricted sociosexual orientation, who would put a stronger emphasis on commitment and closeness in a relationship prior to engaging in sexual activity (Simpson & Gangestad, 1991). Sociosexual orientation is considered a relatively stable disposition and part of a structure of personality (Schmitt, 2003).

Part of the sexual strategies theory refers to intersexual selection, where men and women look for different characteristics in a mate depending on their mating strategy. Short-term strategies may be used to assess the intentions and characteristics of a prospective partner, reveal any deception and evaluate mate value (Buss & Schmitt, 1993). Token resistance may be part of this strategy as a specific tactic to get more time to evaluate a potential mate during sexual bargaining. It should be noted that "tactic" in this sense does not imply conscious awareness of its use. According to sexual strategies theory, women have more adaptive reasons to be skeptical of potential mates, as the short-term sex carry more potential costs for women (Buss & Schmitt, 1993). These costs especially relate to the possibility of unwanted pregnancy. Women are not willing to engage in sexual intercourse

until more time has elapsed in knowing a partner compared to men (Buss & Schmitt, 1993). This may indicate that women spend more time evaluating potential mates. If token resistance is used as a tactic as part of a sexual strategy, one would expect a higher prevalence rate among women as they have more to lose by not being careful in their choice of mate.

Sociosexuality has been linked to unwanted sexual attention in the form of sexual harassment. Individuals with more unrestricted sociosexual orientation are subject to more sexual harassment from the opposite sex, and this may be motivated by an interest in soliciting short-term sex on the part of the perpetrator (Bendixen & Kennair, 2017; Kennair & Bendixen, 2012). The link between sociosexuality and being victim of harassment may be due to (often unconscious) signals of interest in short-term sex being detectable by others (Sakaguchi & Hasegawa, 2007). Such signals of sociosexual unrestrictedness may increase the risk of other forms of unwanted sexual attention and more pressure to comply with unwanted sex.

In addition to sociosexuality, people vary in their need to engage in behavior that involve new and intense stimulation, commonly referred to as sensation seeking (Zuckerman, 1990, Arnett, 1994). Conceptualizations of sensation seeking usually include several dimensions. Arnett (1994) proposed that sensation seeking is a trait with two dimensions reflecting the need for novelty and the need for intense stimulation. The first consists of curiosity and the need for novel stimulation, and the other the need for experiences that provide intense sensory input. Some have suggested that these two dimensions are largely unrelated (Mallet & Vignoli, 2007; Roth & Herzberg, 2004). Intensity seeking is more involved in risky behavior in general than novelty seeking (Arnett, 1994; Mallet & Vignoli, 2007; Roth & Herzberg, 2004), and a higher desire for intense stimulation is associated with several sexual behaviors, including casual sexual relations (Arnett, 1994). The associations between the total sensation seeking-score and different behaviors is almost exclusively accounted for by intensity seeking scores (Arnett, 1994; Roth & Herzberg, 2004). This may suggest that need for intensity is the main motivational component of sensation seeking. Variations in need for intense stimulation may account for individual different strategies during sexual bargaining as well as proneness to sexual activity.

This Study

Based on earlier research, one would expect traditional gender attitudes and stereotypical beliefs about rape to account for much of the variation in both past token resistant and sexually compliant behavior (e.g., Lonsway & Fitzgerald, 1994; Muehlenhard &

11

Hollabaugh, 1988). However, other factors may contribute to sexual miscommunication, possibly through individual differences in sexual strategy. Different specific tactics are used as part of different strategies. Unrestricted sociosexual orientation may be associated with tactics that serve adaptive functions for the user, such as using token resistance to delay intercourse and allow evaluation of potential mates. Due to its association with sexual harassment (Bendixen & Kennair, 2017; Kennair & Bendixen, 2012), one would also expect to find a link between sociosexuality and sexual compliance. Need for intensity of stimulation (Arnett, 1994) may also influence individual tactics, and possibly contribute to sexual miscommunication.

Most of the research done on sexual miscommunication is done using college students (e.g., O'Sullivan & Allgeier, 1998; Sprecher et al., 1994). Yet, many become increasingly sexually active during the high school years (Træen et al., 2011), and are thus already engaging in sexual communication. Identifying which factors contribute to sexual miscommunication is important. A better understanding of why some young people may say "no" despite having a desire and intention to have sex, or consent to sexual activity despite a lack of desire, as well as factors predicting these behaviors, may contribute to more nuanced knowledge on the subject and to serve as a guideline for future rape prevention measures.

The purpose of the present study was to examine the sex differences in prevalence and what factors that contribute to miscommunication of sexual intention in a community sample of high school students. Both token resistance and sexual compliance were studied. One aim was to explore whether primarily attitudinal, behavioral, or personality factors contribute to the occurrence of token resistance on the one hand, and compliance on the other, and whether the two phenomena were predicted by the same factors. Another focus was to investigate whether the contributing factors differed based on sex.

Method

Design and Subjects

The present study consists of cross-sectional data collected from a sample of students attending 17 (out of 22) high schools in Central Norway. A total of 1713 students responded to a web-based questionnaire consisting of almost 400 questions. To uncover responses that were reflecting a lack of motivation, the data was screened for response styles across eight of the instruments included in the questionnaires. Participants with extreme, monotonous, and/or highly inconsistent responses were excluded from the analyses. The participants who were included in the analyses were also restricted to those aged 21 or younger.

The final sample consisted of 1531 students aged between 16 and 21 (Mean age = 17.8, SD = .98 for females, 17.7, SD = .95 for males), whereof 58.5 % were female (N= 895) and 41.5 % were male (N = 636). Of the participants, 83.1% of the women and 86.2% of the men identified as heterosexual, and 11.2% of the women and 4.7% of the men identified as either homo- or bisexual. 5.7% and 9.1% of women and men respectively did not specify their sexual orientation. About two thirds (62.9 %) of the participants reported having had sexual intercourse (61.5 % of women and 56.2 % of men). Mean age of sexual debut among those who reported having had intercourse was 15.45 (SD = 2.15) and 15.23 (SD = 3.58) for women and men respectively. Frequency statistics showed that the 50th percentile for women was around 16 years, and around 17 years for men.

Participants were enrolled in either general studies (60.4 %) or vocational studies (39.4 %). Gender distribution among students enrolled in general studies was 66.5 % and 33.4% women and men respectively, and among students enrolled in vocational studies 45.9 % and 53.9 % women and men respectively. Divorce rates among the participant's parents was 20.1 % and 25.1 % among the women and the men respectively. 36.5 % of the women and 18.4 % of the men reported being in a relationship at the time of responding.

Procedure

Administration of a web-based questionnaire "Health, Sexual Harassment and Experiences Study" was done in cooperation with the schools. Written information regarding the purpose and content of the study was provided to students, parents and teachers by the schools, including informed consent-forms. Data collection was carried out at each school on one of three separate occasions: May/June 2013, November/December 2013, or May/June 2014. Participants were chosen through convenience sampling. An exact response rate could not be calculated, as the total number of invited students was not recorded. Earlier studies using an identical procedure may, however, point towards a conservatively estimated response rate of about 50 % (Kennair & Bendixen, 2012) if one assumed that every student at each school was invited to the study.

The questionnaire was administered by providing participating students with a login code after consent was given. Participants had a choice of responding to the questionnaire on their own computer or on a computer at the school. Anonymity and confidentiality was insured by group-wise administration at the schools. No compensation was given for participation in the study. The school's public nurse was available at the schools for conversations with the students if necessary during the weeks of data collection. The study

was conducted with approval from The Regional Committee for Medical and Health Research Ethics (REK sør-øst C, 2013/408; see Appendix).

Measures

      Token resistance and compliance. The survey included the following item inquiring about participants' past use of token resistance: *"I have been in situations the last school year where I really wanted to have sex and had every intention of doing it, but still said "no" and that I didn't want to"*. The item was based on the definition of token resistance by Muehlenhard and Hollabaugh (1988). Participants were given three response alternatives (1 = *no*, 2 = *one time*, 3 = *two or more times*). Compliance with unwanted sex was assessed using the following item: *"I have been in situations during the last school year where I didn't want to have sex, but went along with it anyway"*. Participants were given identical response alternatives as on the item inquiring about token resistance. The scores were recoded and dichotomous scores were used in the analyses on token resistance and compliance.

      Token resistance belief. The belief that women engage in token resistance (token resistance belief) was measured with the following item: *"How much do you agree or disagree with this claim: A woman may really desire to have sex even if she repeatedly says "no" and that she doesn't want to"*. The item was rated by participants on a 5-point Likert scale, ranging from (1) *strongly disagree* to (5) *strongly agree*. A second identical item was included to measure the belief that men engage in token resistance, only changing "woman" to "man" and "she" with "he".

      Ambivalent sexism towards women and men. Adherence to traditional gender roles and varying attitudes towards women and men was assessed using Bendixen and Kennair's (submitted) Norwegian short form of the 22-item Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) and the 20-item Ambivalence Toward Men Inventory (AMI; Glick & Fiske, 1999). The items in the ASI and AMI measure four different aspects of ambivalent sexism. Four of the ASI items measured hostile sexism towards women (HS; justification of objectification and power over women). The remaining four ASI items measured benevolent sexism towards women (BS; acceptance of traditional female gender roles, a view of women as needing protection from men). Four AMI items measured hostility towards men (HM; resentment of male power and acceptance of negative stereotypes about men, seeing men as arrogant, hostile and domineering). The remaining four AMI items measured benevolence towards men (BM; acceptance of traditional male gender roles, a view of men needing to be taken care of by women). Items were rated by participants on a 5-point Likert scale, ranging

from (1) *strongly disagree* to (5) *strongly agree*). The items were presented to the participants in scrambled order mixed with questions on women and men in relationships. Internal consistency (Cronbach's Alpha) was acceptable for Hostile sexism ($a = .75$) and Benevolence toward men ($a = .81$), but a bit low for Benevolent sexism ($a = .68$) and Hostility toward men ($a = .67$).

Rape stereotypes. Participant's stereotypical beliefs about rape was measured using a modified version of Payne, Lonsway, and Fitzgerald's (1999) 45-item "*Illinois Rape Myth Acceptance Scale*" (IRMA) by McMahon and Farmer (2011). The modified scale consists of 22 of the original items, and a Norwegian translation of the scale by Bendixen and Kennair (submitted) was used in this study. Responses are given on a 5-point Likert scale (1=*strongly disagree*, 5=*strongly agree*), with high scores reflecting stronger stereotypical beliefs about rapes of women. Due to a high (15.8 %) missing rate, missing scores were substituted by computing median scores from other scores based on similar demographics. The total mean and standard deviation of the scale with substituted missing values did not significantly differ from the original values with missing values. Internal consistency of the IRMA scale was excellent ($a = .91$), both before and after substitution of missing items.

Sociosexuality. Sociosexual orientation was measured using Penke and Asendorpf's (2008) revised "Sociosexual Orientation Inventory" (SOI-R). The SOI-R is a 9-item self-report measure that includes three subdimensions corresponding to the behavior, desire, and attitude facets of sociosexuality. The *behavior* dimension (SOI-behavior) consists of three items reflecting the participants' history of sociosexual behaviors. The *desire* dimension (SOI-desire) consists of three items meant to capture participants' level of sexual interest in the form of subjective sexual arousal and frequency of sexual fantasies. The *attitudes* dimension (SOI-attitudes) consists of three items assessing participants' thoughts and feelings toward uncommitted sex. Scaling and scoring was done in the same manner as Penke and Asendorpf (2008). Internal consistency was excellent for the three dimensions: SOI-Behavior ($a = .90$), SOI-Desire ($a = .89$), and SOI-Attitudes ($a = .88$).

Intensity seeking. The need for intense stimulation among the participants was measured using seven items from the *intensity*-subscale from Arnett's (1994) "*Arnett Inventory of Sensation Seeking*" (AISS). Three of the original 10 items were excluded due to low internal consistency of the scale. Responses were given using 4-point Likert scales (1=*describes me very well*, 4=*does not describe me at all*). Internal consistency was not particularly high ($a = .64$).

Alcohol consumption. Participants' level of alcohol consumption was assessed using one item ("*Have you during this school year had so much alcohol to drink that you felt clearly intoxicated?*"). Participants responded on a scale ranging from 1 to 5 (1 = "No", 2 = on a few occasions, 3= approximately every month, 4= approximately every week, and 5= approximately every day).

Porn exposure. Questions concerning participant's self-reported exposure to erotica and pornographic material was included in the questionnaire (Bendixen & Kennair, 2017). Participants responded "No" or "Yes" on items inquiring on whether they had used different types of explicit material during the past academic year (erotica, soft core porn, hard core porn, porn with violent content). Construction of the porn exposure index was done by first coding the type of porn use first (0 = *no exposure or erotica only,* 1 = *soft core porn,* 2 = *hard core porn,* and 3 = *violent porn*). Each porn type score was then multiplied with the participant's report of frequency of porn exposure (0 = *never,* 1 = *rarely,* 2 = *monthly,* 3 = *weekly,* 4 = *daily*), producing a porn exposure index (high scores reflect a combination of hard core/violent and frequent porn use).

Analyses

Scores were computed for all the different scales by calculating the mean value of the respective items prior to analyses. The data was checked for violations of statistical assumptions. Methods used to check for violations are specified for each reported analysis in the results section. Sex differences in prevalence and ratings on scales were assessed using chi-square tests and t-tests, respectively. Magnitude in mean difference between variables are reported in Cohens' *d* using Cohen's (1992) conventions for small, medium and large effect size. Associations among variables were analyzed using Pearson correlation for each sex separately. Variables found to be significantly associated with the outcome variables in the correlation analysis were entered as predictors in two binary logistic regression analyses. These were performed to identify the predictive strength of various factors on the use of token resistance and compliance behavior among the participants. The data was split by sex in both regression analyses, and the predictor variables were subject to collinearity diagnosis to test for multicollinearity. One logistic regression analysis was performed to assess predictors of the use of token resistance. The model contained eight factors; token resistance belief about women and men, the three components of the SOI-R scale, level of alcohol consumption,

sexual debut, and program of education[1]. A second logistic regression analysis was performed to assess predictors of compliance with unwanted sexual intercourse. The model contained six factors; the three components of the SOI-R scale, level of alcohol consumption, relationship status, and program of education[2]. All analyses were performed using SPSS version 21.

Results

Sex Differences

Token resistance and compliance. A Chi-square test for independence (with Yates Continuity Correction) indicated that a significantly higher proportion of the women (33.4 %) than of the men (22.3 %) reported token resistance, X^2 (1, $n = 1411$) = -19.96, $p < .001$. A calculation of risk estimate indicated an odds ratio of 1.75 (95% CI = 1.37 to 2.23), suggesting that relative to men, women were approximately 1.7 times more likely to report token resistance during the current academic year.

A significantly higher proportion of the women (21.5 %) than of the men (13.3 %) reported compliance with unwanted sexual intercourse, X^2 (1, $n = 1411$) = -14.92, $p < .001$. A calculation of risk estimate indicated an odds ratio of 1.79 (95% CI = 1.34 to 2.40), suggesting that relative to men, women were approximately 1.8 times more likely to report compliance during the current academic year.

Sexism. On the measurements of ambivalent sexism, the gender difference varied based on type of sexism. As shown in Table 1 and Table 2, both women and men scored higher on hostile attitudes toward the opposite sex. The difference in means were significant, t (1405) = 11.42, $p < .001$ on HS and t (1413) = -3.65, $p < .001$ on HM. Men scored significantly higher on BS, t (1427) = 4.37, $p < .001$, while there was no significant gender difference in the scores on BM, t (1422) = 1.56, $p <$ n.s (equal variances not assumed). The difference in means between women and men was medium for HS (Cohen's d = .61), and small for HM and BS (Cohen's d = -.20 and .23, respectively).

Attitudes toward rape. Men scored significantly higher than women on the IRMA scale (see Table 1 and Table 2), t (1529) = 9.41, $p < .001$, suggesting that men report higher

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[1] A preliminary regression analysis was performed with all the variables that were significantly associated with token resistance in the bivariate correlation analysis. The variables that did not significantly predict token resistance in the preliminary analysis were excluded from this regression analysis.

[2] A preliminary regression analysis was performed with all the variables that were significantly associated with Compliance in the bivariate correlation analysis. The variables that did not significantly predict Compliance in the preliminary analysis were excluded from this regression analysis. Sexual debut was not included as a variable, as participants who have not had sexual intercourse per definition cannot have complied with unwanted sex.

acceptance of stereotypical beliefs about rape of women than women. The magnitude of the difference in the means (mean difference = .27, 95% *CI*: .21 to .33) was small to medium (Cohen's *d* = .48).

SOI-R. The scores on SOI-behavior did not differ significantly between men and women (for means and SD, see Table 1 and Table 2), $t(979.4) = 1.20$, $p = $ n.s (equal variances not assumed). Men did however score higher than women on SOI-desire (see Table 1 and Table 2), $t(960.5) = 14.26$, $p < .001$ (equal variances not assumed). The effect size of the difference in the means (mean difference = 1.65, 95% *CI*: 1.42 to 1.87) was large (Cohen's *d* = .92). The same was also the case with SOI-attitudes, with men scoring significantly higher than women (see Table 1 and Table 2), $t(1378) = 13.60$, $p < .001$. The difference in the means (mean difference = 1.72, 95% *CI*: 1.47 to 1.97) indicated a large sex effect (Cohen's *d* = .73).

Intensity seeking. Men scored significantly higher than women on the AISS Intensity Seeking subscale, $t(1381) = 9.67$, $p < .001$. The difference in the means (mean difference = .26, 95% *CI*: .21 to .31) indicate a medium sex effect (Cohen's *d* = .53).

Alcohol consumption. Women and men did not differ significantly in levels of alcohol consumption (see Table 1 and 2), $t(1095.76) = .63$, $p = $ n.s (equal variances not assumed).

Porn exposure. As shown in Table 1 and Table 2, there was a large difference in mean levels of porn exposure between men and women, $t(811.03) = 25.78$, $p < .001$ (equal variances not assumed). The magnitude of the difference in the means (mean difference = 4.28, 95% *CI*: 3.96 to 4.61) was very large (Cohen's *d* = 1.81), suggesting that men consume pornographic material at a much higher rate than women.

Bivariate Correlations

Correlation between token resistance and compliance. A Chi-square test for independence (with Yates Continuity Correction) indicated a moderate significant association between use of token resistance and compliance for both sexes, $X^2 (1, n = 836) = 76.02$, $p < .001$, *phi* = .31 for women, and $X^2 (1, n = 573) = 44.36$, $p < .001$, *phi* = .28 for men. This suggests a moderate overlap between those who report using token resistance and those who report compliance. A calculation of risk estimate indicated an odds ratio of 4.46 (95% *CI* = 3.15 to 6.31) for women and 5.16 (95% *CI* = 3.11 to 8.56) for men, meaning that women and men who report having used token resistance the last year were approximately 4.5 and 5 times more likely, respectively, to report having complied to initially unwanted sexual intercourse in the same period of time.

Table 1

Summary of Intercorrelations, Means, and Standard Deviations - Women (N = 730-895)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	M	SD
1. Token resistance (0, 1)																				.33	.47
2. Compliance (0, 1)	.31***																			.21	.41
3. Age (16-21)	.05	.01																		17.75	.98
4. Sexual orientation (0, 1)	.08*	.13***	.01																	.12	.32
5. Edu. prog. (0, 1)	-.07	-.06	-.14***	.01																1.31	.46
6. Relationship status (0, 1)	-.02	.17***	-.01	-.02	.10**															.37	.46
7. Sexual debut (0, 1)	.19***	.36***	-.04	.06	.07	.48***														.67	.47
8. SOI behavior (1-9)	.24***	.28***	.08*	.22***	.10**	.15***	.52***													2.03	1.33
9. SOI desire (1-9)	.31***	.12**	.02	.27***	-.09*	-.39***	-.02	.21***												2.75	1.78
10. SOI attitudes (1-9)	.20***	.12***	.04	.20***	-.14***	-.17***	.16***	.38***	.46***											4.52	2.32
11. TR belief women (1-5)	.17***	.10**	.00	-.02	.02	.00	.09**	.14***	.04											3.40	1.16
12. TR belief men (1-5)	.07	.10**	.04	-.01	.03	.00	.08*	.05	.02	.64***										3.14	1.09
13. IRMA (1-5)	.03	.06	.01	.18***	.10**	.04	.02	.01	-.19***	.15***	.10**									2.26	.55
14. HS Women (0-5)	.05	.09**	-.02	.08*	-.01	.01	.08*	.11**	-.02	.13***	.07*	.35***								1.85	.92
15. HM Men (0-5)	.08*	.07*	.04	.08*	-.02	.00	.03	.09*	-.08*	.10**	.07	.37***	.61***							1.93	.87
16. BS Women (0-5)	.00	.01	-.01	-.06	.16***	.02	-.02	.00	.01	-.15***	.09**	.05	.35***	.63***						1.91	.94
17. BM Men (0-5)	.01	.03	.00	-.09*	.18***	.07	.02	.03	.01	-.19***	.11**	.03	.37***	.54***	.56***					2.00	1.11
18. Intensity seeking (1-4)	.12***	.04	.12***	.02	-.02	-.02	.08*	.15***	.24***	.22***	.05	.03	.09*	.10**	.02	.02	-.01			2.36	.47
19. Alcohol (1-5)	.27***	.17***	-.02	.11***	-.04	-.01	.28***	.34***	.33***	.42***	.09*	-.01	-.07	.03	.06	.01	.03	.20***		2.33	.87
20. Porn exposure (0-12)	.11**	.13***	-.09*	.28***	.03	.03	.10**	.22***	.32***	.20***	.05	-.03	.01	.17***	.12***	.05	.06	.21***	.17***	.89	1.97

Note. SOI = Sociosexual Orientation Inventory-Revised; Edu. prog. = program of education (0=vocational studies, 1=general studies); TR belief = token resistance belief; IRMA = Illinois Rape Myth Acceptance Scale; HS Women = hostile sexism toward women; HM Men = hostility toward men; BS Women = benevolent sexism toward women; BM Men = benevolence toward men; Alcohol = frequency of alcohol consumption.

* = p < .05

** = p < .01

*** = p < .001

19

Table 2

Summary of Intercorrelations, Means, and Standard Deviations - Men (N = 503-636)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	M	SD
1. Token resistance (0, 1)	1																			.22	.42
2. Compliance (0, 1)	.28***																			.13	.34
3. Age (16-21)	.00	.01																		17.71	.95
4. Sexual orientation (0, 1)	.06	.04	.02																	.05	.22
5. Edu. prog. (0, 1)	.03	-.02	-.08*	.03																1.51	.50
6. Relationship status (0, 1)	.03	.16***	-.01	.06	-.04															.19	.40
7. Sexual debut (0, 1)	.14***	.33***	.05	-.09*	.02	-.04														.56	.50
8. SOI behavior (1-9)	.20***	.36***	.02	.05	.09*	.02	.36***													2.13	1.66
9. SOI desire (1-9)	.14***	.08	.02	.12**	.02	-.34***	-.03	.18***												4.40	2.21
10. SOI attitudes (1-9)	.04	.15***	-.04	.06	-.07	-.22***	.18***	.36***	.46***											6.24	2.27
11. TR belief women (1-5)	.13**	.10*	-.07	-.06	.06	.06	.12**	.08	.14**	.13**										3.29	1.18
12. TR belief men (1-5)	.17***	.04	-.04	-.01	.00	-.03	-.01	.09	.02	.54***										3.17	1.13
13. IRMA (1-5)	.04	.06	-.03	-.09*	-.06	.02	.09*	.16***	.10*	.17***	.10*									2.53	.56
14. HS Women (0-5)	.10*	.18***	-.06	-.02	.06	.03	.14***	.17***	.13***	.16***	.10*	.35***								2.45	1.04
15. HM Men (0-5)	.10*	.13**	-.04	-.11*	-.04	.06	.12**	.09*	.08	.13**	.04	.30***	.46***							1.76	.90
16. BS Women (0-5)	.15***	.03	-.05	-.15***	.18***	-.02	.04	.07	-.05	.10*	.11**	.19***	.28***	.55***						2.14	.97
17. BM Men (0-5)	.10*	.09*	-.09*	-.18***	-.21***	.00	.14***	.12**	.11*	.13**	.06	.25***	.44***	.63***	.75***					2.09	1.02
18. Intensity seeking (1-4)	.11**	.14***	-.05	-.08	-.01	.20***	.21***	.20***	.23***	.23***	.19***	.17***	.21***	.10*	.12**	.20***				2.62	.51
19. Alcohol (1-5)	.20***	.26***	-.01	-.01	.10*	.07	.41***	.42***	.13**	.39***	.09*	-.02	.08	.07	.03	.11*	.17***			2.36	.98
20. Porn exposure (0-12)	.04	.07	-.10*	.11**	.00	-.09*	.01	.04	.43***	.30***	.08	.04	.08	.19***	.13**	.09*	.13***	.19***	.19***	5.18	3.61

Note. SOI = Sociosexual Orientation Inventory-Revised. Edu. prog. = program of education (0=vocational studies, 1=general studies); TR belief = token resistance belief; IRMA = Illinois Rape Myth Acceptance Scale; HS Women = hostile sexism toward women; HM Men = hostility toward men; BS Women = benevolent sexism toward women; BM Men = benevolence toward men; Alcohol = frequency of alcohol consumption.

* = p < .05
** = p < .01
*** = p < .001

Correlations among the possible predictors. The bivariate associations between the predictors are presented in the following section, as well as the associations between the predictors and the outcome variables (see Table 1 and Table 2). Then, the relevant variables are examined in a multivariate analysis predicting token resistance and compliance.

All four types of sexism (HS, BS, HM, BM) were significantly associated with each other as well as acceptance of stereotypical beliefs about rape. Intensity seeking was significantly correlated with all dimensions of SOI for both sexes. Sexual orientation was significantly correlated with porn exposure for both men and women, with participants identifying as a sexual minority reporting on average higher consumption of pornography. The correlation was stronger for women than for men. There was a moderate association between sexual orientation and the three dimensions of SOI among women, with women identifying as bi- or homosexual reporting higher levels of SOI. There was a small association between sexual orientation and SOI-desire among men, but no significant association with SOI-behavior or -attitudes. Stereotypical beliefs about rape were not significantly associated with porn exposure for women or men. Porn exposure was however significantly associated with all the dimensions of SOI (with the exception of SOI-behavior among men), and correlated most strongly with SOI-desire for both men and women. The correlation between porn exposure and HS was significant, yet smaller than the correlation with SOI-desire and -attitudes for both sexes.

Correlations with use of token resistance. Among women (see Table 1), the results show a small positive correlation between token resistance and SOI-behavior and –attitudes, and a moderate positive correlation between token resistance and SOI-desire. There was a small positive correlation between token resistance and sexual debut, suggesting that a higher proportion of those having had intercourse reported having used token resistance the last year. token resistance showed a small to moderate association with increased consumption of alcohol, and there was a small positive correlation between token resistance and level of porn exposure. A Chi-square test for independence (with Yates Continuity Correction) indicated a very small, yet significant association between sexual orientation and use of token resistance for women, X^2 (1, n = 809) = 4.74, p = .03, *phi* = .08. A calculation of risk estimate indicated an odds ratio of 1.65 (95% *CI* = 1.07 to 2.54), indicating that women who identify as bi- or homosexual have a slightly higher probability of reporting having used token resistance than heterosexual women.

Among men (see Table 2), the results show a small significant correlation between token resistance and the behavior and desire dimensions of SOI, and no significant correlation

between token resistance and SOI-attitudes. Similar to the women, there was a small positive correlation between token resistance and sexual debut, suggesting that a higher proportion of the men having had intercourse reported having used token resistance the last year. Token resistance was related to increased consumption of alcohol, but there was no significant correlation between token resistance and porn exposure among men. There was no significant association for men between sexual orientation and token resistance.

      Correlations with sexual compliance. Among women (see Table 1), compliance showed a small significant correlation with the desire- and attitudes-dimensions of SOI, and a small to moderate correlation with SOI-behavior. There was a small positive correlation between relationship status and compliance, suggesting that a higher proportion of those in a relationship had complied with initially unwanted sexual intercourse the last year. Compliance showed a small to medium positive correlation with alcohol consumption, and there was a small positive correlation between compliance and level of porn exposure.

      Among men (see Table 2), compliance showed a moderate association with SOI-behavior and a small association with SOI-attitudes. No significant association was found between compliance and SOI-desire. There was a small positive correlation between relationship status and compliance, suggesting that a higher proportion of those in a relationship had complied with initially unwanted sexual intercourse the last year. Compliance showed a small to medium positive correlation with alcohol consumption. There was no significant correlation between compliance and porn exposure among men. Compliance was positively correlated with hostile sexism towards women and men. The results suggest a small association between the variables. There was no significant association for men between sexual orientation and compliance.

Regression Analyses

      Predictors of the use of token resistance. A binary logistic regression analysis was performed to identify the predictive strength of various factors on the use of token resistance. All eight predictors were entered in the same model to examine the relative contribution of the factors. The individual contributions of the different predictors are shown in Table 3.

      The full model containing all predictors was statistically significant for both sexes, X^2 (8, N = 711) = 120.50, p = .001 for women, and X^2 (8, N = 472) = 59.82, p < .001 for men. The model as a whole explained 21.4 % of the variance in token resistance for women (Nagelkerke R square), and 18.1 % for men. The results of Hosmer-Lemeshow test (p = n.s.) indicates good fit of the model for both sexes.

Table 3

Predictors of Token Resistance

	Women (*n* = 711)		Men (*n* =472)	
	OR	95% CI	*OR*	95% CI
1. SOI-R (1-9)				
a. Behavior	1.17†	[1.00-1.37]	1.20*	[1.02-1.41]
b. Desire	1.38***	[1.24-1.54]	1.23***	[1.09-1.39]
c. Attitudes	.96	[0.88-1.05]	.81**	[0.71-0.93]
2. Alcohol (1-5)	1.38**	[1.09-1.74]	1.60***	[1.20-2.13]
3. Sexual debut (0, 1)	1.76*	[1.12-2.78]	1.45	[0.80-2.62]
4. Edu. Prog. (0, 1)	.63*	[0.43-0.92]	.89	[0.56-1.43]
5. TR belief (1-5)				
a. Women	1.38***	[1.14-1.67]	1.04	[0.82-1.32]
b. Men	.90	[0.74-1.10]	1.51**	[1.17-1.95]

Note. OR = odds ratio; CI = confidence interval; SOI-R = Sociosexual Orientation Inventory-Revised; Alcohol = frequency of alcohol consumption; Edu. Prog = program of education (0=vocational studies, 1=general studies); TR belief = token resistance belief.
† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

Women. Among women, token resistance belief about women significantly predicted token resistance (OR = 1.38). SOI-desire was the strongest predictor among the three dimensions of SOI, with an odds ratio of 1.40. SOI-behavior was marginally significant (p = .054). SOI-attitudes did not significantly predict use of token resistance over and above the other factors in the model. Sexual debut significantly predicted the use of token resistance. Women who reported having had sexual intercourse were 76 % more likely to report token resistance. Level of alcohol consumption also significantly predicted token resistance. Higher consumption was associated with a higher likelihood of using token resistance (OR = 1.38). Program of education significantly predicted the use of token resistance, with fewer women enrolled in vocational studies reporting token resistance than those enrolled in general studies (OR = .63).

Men. Token resistance belief about men significantly predicted token resistance among men (OR = 1.52). All three dimensions of sociosexuality significantly predicted token resistance. Higher scores on SOI-behavior and –desire and a lower score on SOI-attitudes

23

were associated with a higher likelihood of token resistance (OR =1.20, 1.23 and .81, respectively). Similar to women, the use of token resistance among men was significantly predicted by alcohol (OR = 1.60). Contrary to the women, however, sexual debut and program of education did not significantly predict the use of token resistance.

Predictors of sexual compliance. A binary logistic regression analysis was performed to identify the predictive strength of various factors on compliance with unwanted sex. All six predictors were entered in the same model to examine the relative contribution of the factors. The individual contributions of the different predictors are shown in Table 4.

Table 4

Predictors of Compliance

	Women ($n = 735$)		Men ($n = 490$)	
	OR	95% CI	*OR*	95% CI
1. SOI-R (1-9)				
a. Behavior	1.49***	[1.29-1.73]	1.49***	[1.28.1.74]
b. Desire	1.22**	[1.08-1.39]	1.12	[0.96-1.29]
c. Attitudes	.96	[0.87-1.07]	1.04	[0.88-1.22]
2. Alcohol (1-5)	1.24	[0.96-1.60]	1.60**	[1.14-2-25]
3. Relationship (0, 1)	2.93***	[1.90-4.51]	3.80***	[1.92-7.54]
4. Edu. Prog. (0, 1)	.52**	[0.33-0.81]	.81	[0.46-1.43]

Note. OR = odds ratio; CI = confidence interval; SOI-R = Sociosexual Orientation Inventory-Revised; Alcohol = frequency of alcohol consumption; Edu. Prog = program of education (0=vocational studies, 1=general studies).
† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

The full model containing all predictors was statistically significant for both sexes, X^2 (6, N = 735) = 92.47, p < .001 for women, and X^2 (6, N = 490) = 78.86, p < .001 for men. The model as a whole explained 17.9 % of the variance for women (Nagelkerke R square), and 26.3 % for men. The results of Hosmer-Lemeshow test (*p* = n.s.) indicates good fit of the model for both sexes.

Women. Of the three dimensions of SOI, the behavior dimension was the strongest predictor of compliance with unwanted sexual intercourse among women. The predictive value of SOI-desire was also significant, while SOI-attitudes did not significantly predict

24

compliance. Program of education was a significant predictor of compliance, recording an odds ratio of 0.52. This meant that women enrolled in general studies were 1.9 times more likely to report compliance, relative to women in vocational education. Being in a relationship also predicted compliance among women. Relationship status was also the strongest predictor of compliance, with an odds ratio of 2.93. Thus, women who were in a relationship were almost three times more likely to report having complied with sexual intercourse. Alcohol consumption did not significantly predict compliance among women.

Men. The behavior dimension of SOI was the only significant predictor of compliance of the three dimensions of SOI among men. SOI-desire and -attitudes did not significantly predict compliance. Relationship status was the strongest significant predictor of compliance, recording an odds ratio of 3.80. Men who reported being in a relationship were almost four times more likely to have complied with sexual intercourse that they initially did not want. Alcohol was a significant predictor of compliance among men, with higher consumption signifying a greater risk (OR = 1.60). Among the men in the sample, program of education did not significantly predict compliance.

Interaction Analyses

Interaction effect between relationship status and alcohol consumption on sexual miscommunication. To assess a potential moderation effect of relationship status on the predictive value of alcohol consumption on the outcome variables, a logistic regression analysis was performed with use of token resistance as outcome variable, and relationship status, alcohol consumption, and an interaction variable between the two predictors. The same procedure was repeated with compliance as outcome variable.

A significant interaction effect was found between relationship status and weekly alcohol consumption on token resistance for women ($OR = .58$, $p = .006$), but not men ($OR = .93$, $p = .79$). Another significant interaction effect was found between relationship status and weekly alcohol consumption on compliance for both sexes ($OR = .62$, $p = .03$ for women and $OR = .38$, $p = .001$ for men). Bivariate correlations were examined to assess the direction of the interaction for each gender within each relationships status group.

First, token resistance and alcohol consumption was entered in the correlation. Among women, the relationship between the variables was significant among the participants who were single, $r = .34$, $n = 497$, $p < .001$, and marginally significant among the women who were in a relationship, yet smaller than among the women who were single, $r = .11$, $n = 297$, $p = .06$. Among men, the relationship between the variables was significant among the

participants who were single, $r = .21$, $n = 427$, $p < .001$. The correlation was only marginally significant among the men who were in a relationship, yet approximately as strong as among the single men, $r = .19$, $n = 107$, $p = .06$.

A second analysis was performed entering compliance and alcohol consumption in the correlation. The relationship between the variables was significant among the participants who were single, $r = .23$, $n = 498$, $p < .001$ (women) and $r = .31$, $n = 426$, $p < .001$ (men). No significant correlation was found among the participants who were in a relationship (p = n.s. for both sexes).

Discussion

The purpose of the present study was to explore the sex difference in the prevalence of miscommunication of sexual intention, as well as the predictive value of individual attitudinal, behavioral, and personality factors. Several associations were found between sexual miscommunication and the factors that were investigated. These associations may contribute to the understanding of sexual miscommunication among women and men, respectively.

Summary of Findings

In our sample, the prevalence of token resistance was higher among women (33.4%) than men (22.3%). This was also the case for sexual compliance (21.5% of women and 13.3% of men). The two forms of sexual miscommunication were associated with each other. Participants who reported use of token resistance were more likely to report compliance with unwanted sex as well. Of the attitudinal factors examined in this study, own use of token resistance during the past year was predicted by stronger belief that it is common among members of one's own sex to indicate "no", while meaning "yes". The different forms of sexism and rape stereotypes did not emerge as significant predictors of neither token resistance nor compliance. Of the behavioral and other related factors, frequency of alcohol consumption predicted token resistance among both sexes. The predictive value was stronger among single women compared to women who were in a relationship. There was no difference in the predictive value of alcohol among men based on relationship status. Sexual debut and program of education was found to predict token resistance, yet only among women. Use of token resistance was more common among women who had debuted sexually and were enrolled in general studies. Porn consumption did not significantly predict either

form of sexual miscommunication. Relationship status was found to be the strongest predictor of sexual compliance. Women and men who were in a relationship were almost 3 and 4 times more likely, respectively, to report compliance compared to single participants. Although alcohol consumption predicted compliance only among men, it predicted compliance in both sexes among single participants. Women enrolled in general studies were more likely to report sexual compliance compared with women enrolled in vocational studies. There was no difference among men. Of the personality factors, sexual miscommunication was predicted by sociosexual orientation (i.e. interest in short-term sex). Token resistance was most strongly associated with sociosexual desire in both sexes, with higher prevalence reported among participants with higher level of short-term sexual interest. Compliance was more strongly associated with sociosexual behavior, with higher prevalence among participants with a history of more reported short-term sexual behavior. Sociosexual attitudes did not significantly predict sexual miscommunication, with the exception of token resistance among men. The association was negative, indicating that token resistance was used more often among men with more restricted (i.e. less accepting) attitudes toward short-term sex. Intensity seeking did not significantly predict sexual miscommunication.

Comparing Findings with Previous Research

Prevalence of token resistance and compliance. Several similarities and differences were found between this study and previous research. In our sample, more women than men reported token resistance, as opposed to previous studies in which the prevalence is usually higher among men (O'Sullivan & Allgeier, 1994; Sprecher et al., 1994). More women than men also reported sexual compliance. The sample of the present study consisted of high school students and included both virgin and non-virgin participants. They were asked to report compliance with sexual intercourse only, not sexual activity in general. When methodological differences with regard to these factors are taken into consideration, the prevalence of sexual compliance in our sample was relatively similar compared to the prevalence found in previous studies (Kalof, 1995; Krahé et al., 2000; O'Sullivan & Allgeier, 1998; Katz & Schneider, 2015; Shotland & Hunter, 1995; Sprecher et al., 1994).

Association between token resistance and compliance. Previous findings on the association between token resistance and sexual compliance are contradictory. Some have found associations (Shotland & Hunter, 1995), while others have not found significant associations between the two forms of sexual miscommunication (Katz & Schneider, 2015). Token resistance and compliance were associated with each other in our sample, which

supports the contention of common underlying processes that may increase the tendency to miscommunicate sexual intention. Both behaviors occur as part of sexual bargaining, and people who seek out sexual bargaining more often may have a higher probability of engaging in both forms of sexual miscommunication. Token resistance and compliance may, however, be more directly associated. If token resistance is used as a way to postpone sexual intercourse, there is a risk that the potential partner will eventually lose interest. It is then possible that compliance occurs (i.e. one complies with sex despite lack of desire, to prevent the partner from losing interest).

Attitudinal factors. Previous studies have assessed the effect of traditional gender role attitudes on sexual miscommunication (e.g., Muehlenhard & Hollabaugh, 1988; Muehlenhard & Cook, 1988). However, the different forms of sexism and stereotypical beliefs about the rape of women were not particularly strong predictors of token resistance or compliance in our sample. There was a small correlation between hostile attitudes toward each sex and compliance. It is possible that these hostile attitudes came as a result of having complied with unwanted sex among some participants, rather than contributing to compliance themselves. Measures of general attitudes have often been found to be bad at predicting single behaviors (see Ajzen & Fishbein, 2005). Miscommunication of sexual intention did not seem to be particularly affected by traditional gender role attitudes.

Use of token resistance was, however, predicted by the specific belief that token resistance is commonly used among same-sex peers. This supports earlier findings (Krahé et al., 2000; Muehlenhard & Hollabaugh, 1988). The causal mechanism may go both directions. Believing that many people use token resistance may increase the likelihood of doing it one self. On the other hand, a history of token resistance may increase the expectation that others do so as well. It is possible that the relation between token resistance beliefs and the corresponding behavior may be linked to either adherence to a specific sexual script or a strategy for sexual bargaining related to testing the interest of a potential partner.

Behavioral factors. Several behavioral factors showed associations with sexual miscommunication. Relationship status did not predict token resistance, suggesting that token resistance is used in both committed relationships and casual dating settings. Relationship status did predict compliance. This supports previous studies that have found that compliance may be relatively common within relationships (Vannier & O'Sullivan, 2010), and that it may act as a way of maintaining the relationship (O'Sullivan & Allgeier, 1998; Shotland & Hunter, 1995). The findings in this study may support the notion that engaging in unwanted sexual activity within a committed relationship is qualitatively different from unwanted sexual

activity within other forms of sexual relationships (Vannier & O'Sullivan, 2010). Future research should distinguish between compliance with someone who is and someone who isn't a committed partner.

Being enrolled in general studies predicted both forms of sexual miscommunication among women only. Vocational and general studies differed in gender distribution in this study, with a higher percentage of women enrolled in general studies and a higher percentage of men enrolled in vocational studies. Due to the large proportion of women in general studies, there may be a higher degree of intrasexual (i.e. within-sex) competition for male attention, leading some women to become submissive and comply with unwanted sex out of fear that a boy will lose interest (Buss & Schmitt, 1993; Whitmire, 2008). There was no similar tendency among men enrolled in vocational studies. Sexual compliance may not be as common a tactic in intrasexual competition among men compared to women. This may be due to the relatively small difference in gender distribution, the lower prevalence of sexual compliance among men, as well as the fact that men in general have a higher desire for short-term sex (Hyde, 2005).

Token resistance was more common among sexually active women, while sexual debut did not significantly contribute to the behavior among men. The casual explanation for the association between sexual debut and token resistance may go two ways. As token resistance implies desire and intention to have sex, it is obvious that many who have used token resistance also have had sexual intercourse. On the other hand, people who have not had sex may be signaling less sexual interest (Sakaguchi & Hasegawa, 2007), and take part in sexual bargaining less often than others who are sexually active. It is possible that there is a sex difference in the predictive value of sexual debut on token resistance. However, considering the large spread in 95% confidence intervals for both women, it is possible that the sex difference was due to random variation in the sample.

In line with previous studies (Pedersen & von Soest, 2015), there was no gender difference in frequency of alcohol consumption, suggesting that the gender difference in the predictive value of alcohol is not due to one gender drinking more often than the other. Frequency of alcohol consumption did, however, contribute to both token resistance and compliance in our sample once relationship status was added into the equation. Alcohol contributed to sexual miscommunication especially among participants who were single. This may be an indication that a common arena for sexual negotiation is situations where alcohol is involved. Mixed-sex social settings where alcohol is involved such as unsupervised parties is a known arena for sex among adolescents (Lindgren et al., 2009). Alcohol may increase

confidence and reduce concerns and inhibitions related to sexual activity (Livingston et al., 2013). Higher frequency of alcohol consumption among single participants may reflect the frequency of which they attend parties, and thus engage in sexual bargaining. This may explain the contribution of alcohol consumption on use of token resistance. The strong association between the frequency of alcohol consumption and use of token resistance among women relative to men suggests that women engage in token resistance especially within settings involving alcohol, while alcohol contributes to token resistance both among single men and men in committed relationships equally. Alcohol also lowers judgment and reduces the ability to refuse sexual approaches (Davis et al., 2004). The risk of sexual compliance may be higher due to this reduction in the ability to say no. Our findings suggest that alcohol plays a significant role in sexual compliance during casual sex, but not in compliance with a committed partner. The association between alcohol and sexual compliance among singles was stronger among men, suggesting that reduced ability to refuse unwanted sex has more to do with intoxication among men than women.

Personality factors. The strong association between sociosexual orientation and the two forms of sexual miscommunication indicates that token resistance and compliance may be more strongly related to personality characteristics. Sociosexuality is considered a relatively stable individual disposition reflecting degree of unrestricted sexual interest (Schmitt, 2003), and the frequency of which people engage in sexual bargaining may be due to individual variation in sociosexual orientation. The predictive value of sociosexual desire on the use of token resistance, suggests that hiding sexual intention may be used as a part of a short-term sexual strategy. Sociosexual desire is regarded as the motivational component of sociosexuality characterized by heightened short-term sexual interest (Simpson & Gangestad, 1991). Token resistance thus seems to occur more frequently among people with a higher desire for short-term sex. By keeping sexual intention hidden during sexual bargaining, token resistance may function as a tactic to delay sexual activity and allow time to evaluate a prospective short-term mate (Buss & Schmitt, 1993).

Earlier studies have identified greater sexual experience as a predictor of sexual compliance (Shotland & Hunter, 1995). The strong predictive value of sociosexual behavior, combined with the relative lack of prediction from sociosexual desire and attitudes on sexual compliance in this study, may suggest that number of sexual partners is the primary predictor, and not motivational interest in short-term sex per se. The causality of the association between number of short-term sexual partners and compliance may also go two ways. Engaging in unwanted sex with someone leads to a higher number of sexual partners. Sociosexuality may,

however, help explain why some have more short-term sexual partners than others. Previous research has found that unrestricted individuals attract more sexual attention from others (Sakaguchi & Hasegawa, 2007). The association between sociosexual behavior and compliance is in line with this, as well as research on sexual harassment which suggests that unrestricted sociosexuality may be perceived as a cue to exploitability (Bendixen & Kennair, 2017; Kennair & Bendixen, 2012). Our findings suggest that sociosexual unrestrictedness may predict increased risk of not only unwanted sexual attention (harassment), but also unwanted sexual activity. It is possible that people with high SOI inadvertently signal unrestricted sociosexuality to potential sexual partners, leading to more solicitations for sex. More solicitations may lead to more pressure to comply with unwanted sex for one of the aforementioned reasons (O'Sullivan & Allgeier, 1998; Shotland & Hunter, 1995; Muehlenhard & Cook, 1988).

Intensity seeking did not predict sexual miscommunication in our sample. This may suggest that miscommunication is less associated with a general disposition toward exciting and intense stimuli, and more with specific sexual interest. The internal consistency of the intensity seeking scale from the AISS was low in our sample, casting doubt over the reliability of the scale on the sample of the study. Other studies of adolescents have also reported low internal consistency of the scale (Arnett, 1994; Mallet & Vignoli, 2007; Roth & Herzberg, 2004). Internal consistency is often lower in studies of adolescents using other measures of sensation seeking as well (Zuckerman & Aluja, 2014), which may suggest challenges related to reliably measure sensation seeking among adolescents.

Other findings. One notable finding, although not directly related to sexual miscommunication, was the lack of significant correlation between porn consumption and stereotypical beliefs about the rape of women and the small correlation between porn and hostile sexism. This has been found in earlier research (Garos, Beggan, Kluck, & Easton, 2004), and may indicate that misogyny plays only a small part in pornography use, even though pornographic material often portrays interactions between men and women consistent with hostile stereotypes (Bridges et al., 2010; Cowan et al., 1988). Garos and colleagues (2004) found no association between pornography use and hostile sexism, yet admitted that they did not assess pornography with violent content. The small association with hostile sexism in our sample may be because our measurement of porn consumption included an item assessing violent pornographic consumption. It is possible that people that use violent porn have more hostile attitudes, and this may be a subject for future studies. However, SOI-desire was the variable with the strongest association with porn consumption. This may indicate that

consumption of pornographic material is more related to sexual desire and arousal than misogyny.

Possible Theoretical Implications

According to social role theory, gender differences should be smaller in societies with greater gender equality (Eagly & Wood, 1999). This should also apply to factors related to mate selection. However, the gender difference in prevalence of both token resistance and sexual compliance in our sample does not support this claim. Norway is considered among the most gender equal societies in the world (UN, 2016). Following Eagly and Wood's (1999) reasoning, a lack of variance across cultures may be seen as evidence to suggest an evolved gender difference, rather than one explained by cultural factors. As noted by Buss and Schmitt (1993), the potential consequence of a bad choice of mate is more severe for women than men. If token resistance is part of a sexual strategy with the aim to evaluate a potential sexual partner, one would expect the behavior to be more common among women than men. The findings in this study support the notion that token resistance is related to short-term sexual strategies. It should be noted again that "strategy" and "tactic" in this case would not imply conscious awareness by the user (Buss & Schmitt, 1993).

The gender difference in prevalence of compliance may be due to men having a generally more unrestricted sociosexuality. Short-term sex is thus more often wanted. In addition, men engage in more sexual harassment toward women to solicit sex than women toward men (Bendixen & Kennair, 2017; Kennair & Bendixen, 2012). This may suggest that women are at higher risk of unwanted sexual attention and experience more pressure to comply with unwanted sex. Alternatively, women may be more vulnerable to pressure to comply with sex, either because of gender-role expectations related to putting other people's needs over one's own (e.g., Eagly & Steffen, 1984), or a sexual strategy, perhaps related to an adaptive function of strengthening attachment and avoiding losing a partner (e.g., Buss & Schmitt, 1993).

It is possible that alcohol is consumed as part of a strategy for having sex. Young people who want sex may have concerns about potential consequences, and may therefore use alcohol as a means to curb their anxiety. The correlation between alcohol consumption and sociosexual unrestrictedness suggests that having an unrestricted sociosexual orientation may stimulate sexual interest (pornography may also contribute to this), while alcohol reduces inhibitions (Livingston et al., 2013). Some may attend parties and consume alcohol as a tactic to facilitate sexual exploration (Lindgren et al., 2009). Adolescents are often aware of the

potential risks of alcohol consumption, yet may put stronger emphasis on perceived benefits of drinking (Livingston et al., 2013). It is possible that level of interest in short-term sex, reflected by sociosexual orientation, contributes to the individual tendency to use alcohol as part of a short-term sexual strategy (e.g., Buss & Schmitt, 1993).

It would be naïve to claim that adolescents in Norway, despite the country's gender egalitarian status (UN, 2016), is free of stereotypical gender-role attitudes. This study assessed sexual miscommunication by measuring general attitudes about gender and rape. The low predictive value of general attitudes on specific behaviors has been previously noted (Aijzen & Fishbein, 2005). It is possible that measures of traditional gender roles (e.g., Glick & Fiske, 1996; 1999) do not appropriately measure adherence to traditional sexual scripts (e.g., Clark & Hatfield, 1989; Wiederman, 2005). Assessing the same behaviors by using measurements of specific attitudes more directly related to sexual miscommunication and sexual scripts may yield different results. Nevertheless, our findings suggests that evolutionary processes related to sexual strategies contribute to sexual miscommunication (e.g., Buss & Schmitt, 1993). The predictive value of the dimensions of SOI-R went over and above the value of the different forms of sexism and rape stereotypes, and more women than men had engaged in both token resistance and sexual compliance. Individual variance in the use of sexual miscommunication may seem to be more due to short-term sexual interest rather than adherence to stereotypical gender roles and misogyny.

Limitations

This study measured token resistance with one question derived from the classical study by Muehlenhard and Hollabaugh (1988). It has been pointed out that participants may misunderstand what is included in the definition of token resistance when only a single item is used as measurement (Muehlenhard & Rodgers, 1998). This may lead participants to report episodes that do not meet the definition of token resistance, such as situations where someone said no and meant no, but later changed his or her mind. The current study might be helpful in illustrating different forms of sexual miscommunication. However, there is a need for studies that include a more precise definition of token resistance and more than one item as measurement.

Compliance was also measured with one question in the present study. Although the question in this study is formulated with regard to what it intends to measure, previous studies have pointed out that the lines between compliance, coercion and rape are hard to define (Muehlenhard & Peterson, 2016). The formulation of the question may not make the

distinction between compliance and sexual victimization (i.e. compliance due to use of force or coercion) sufficiently clear (Krahé et al., 2000). Participants may also report compliance in incidents where they initially wanted to have sex, but regretted afterwards. Subsequent studies on compliance should include clear explanations of what is considered compliance. However, the current study may be useful for exploring unwanted sex in a broad sense.

Because the present study has a cross-sectional design, one cannot determine causality from the results of the analyses. For instance, SOI-behavior may predict sexual compliance. Yet, if the reported incident of compliance involved a short-term sexual partner, this incident would influence the SOI-behavior score. This study does however offer an indication of what factors are most relevant to take into consideration when investigating sexual miscommunication.

Conclusion

This study has explored the prevalence of sexual miscommunication and the contributions of a broad range of factors as predictors of token resistance and sexual compliance. Both women and men engaged in token resistance, but more women reported doing so than men, which is contrary to earlier findings. In accordance with previous research, more women engaged in sexual compliance than men. The two forms of sexual miscommunication were found to be related to each other, suggesting that using one increases the likelihood of using the other. Both were predicted by some of the same factors. Most notably was perhaps that unrestricted sociosexuality may be an underlying motive for miscommunicating sexual intention. Interest in short-term sex emerged as a specific sexual disposition that predicted miscommunication over and above the contributions of attitudinal factors such as sexism and rape stereotypes, as well as intensity seeking as a more general personality characteristic.

Several other factors emerged as significant, yet the predictive value varied more based on sex and form of miscommunication. Interesting effects were found regarding alcohol consumption, relationship status and program of education, which may warrant further investigation. Especially the perceived positive view among adolescents concerning the effect of alcohol on facilitating sexual exploration should be further explored. Findings may be incorporated into future programs aimed at teaching adolescents about the effects and potential risks related to alcohol consumption.

The purpose of this study was exploratory, relying on a broad, rather than a more narrow and specified approach. More work with specific hypotheses relating to the contribution of relevant factors is needed to expand our knowledge about sexual

miscommunication, as this may have implications for the focus of future campaigns about communication of sexual intention and unwanted sex. If preventive measures only focus on attitudinal and behavioral factors, they may overlook the significant contribution of individual personality characteristics. Future studies may use the findings in the present study as a basis for more specific hypotheses relating to sexual miscommunication.

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Appendix

Approval by the Regional Committee for Medical and Health Research Ethics (REK)

REK
REGIONALE KOMITEER FOR MEDISINSK OG HELSEFAGLIG FORSKNINGSETIKK

Region:	Saksbehandler:	Telefon:		Vår dato:	Vår referanse:
REK sør-øst	Tor Even Svanes	22845521		05.04.2013	2013/408/REK sør-øst
					C
				Deres dato:	Deres referanse:
				19.02.2013	

Vår referanse må oppgis ved alle henvendelser

Mons Bendixen

Psykologisk institutt, NTNU

2013/408 Helse og trakassering i videregående opplæring

Forskningsansvarlig: NTNU Prosjektleder: Mons Bendixen

Vi viser til søknad om forhåndsgodkjenning av ovennevnte forskningsprosjekt. Søknaden ble behandlet av
Regional komité for medisinsk og helsefaglig forskningsetikk (REK sør-øst) i møtet
14.03.2013. Vurderingen er gjort med hjemmel i helseforskningsloven (hfl.) § 10, jf.
forskningsetikklovens § 4.

Prosjektomtale

Sør-Trøndelag fylkeskommune gjorde i 2007 i samarbeid med Psykologisk institutt, NTNU, en større kartlegging av seksuell trakassering blant elever og ansatte i videregående utdanning. I dette forskningsprosjektet skal man undersøke om seksuell trakassering er et økende problem i videregående skole, hva som gjør at noen trakasserer og noen blir trakassert. En ønsker videre å vite hva trakassering er et uttrykk for og hvilken betydning det har for ungdommers helse. Spørsmål som inngår i studien omfatter familieforhold, seksuelle erfaringer og preferanser, oppfatninger og holdninger til seksuelle krenkelser og til ulike grupper i samfunnet, samt personlige karakteristika. Målet med prosjektet er å redusere trakassering i skolen gjennom utvikling av evidensbaserte og målrettede tiltak. Studien vil gjennomføres med webbasert spørreskjemautfylling, og bruk av reliable og validerte måleinstrumenter tilpasset unge voksne og ungdom. Utvalget består av elever og ansatte i videregående opplæring i Sør-Trøndelag, totalt ca. 10 000 personer. Studien er basert på informert samtykke. Prosjektgruppe vil ikke kjenne deltakernes identitet.

Vurdering

Komiteen legger til grunn at undersøkelser gjort via QuestBack, så lenge IP-adresser kan spores og det finnes rutiner for sletting og trekking av opplysninger, vil være å betrakte som avidentifiserte. Dette understrekes også av prosjektleder i søknaden. Videre har komiteen vurdert hvorvidt prosjektet faller inn under definisjonen av medisinsk og helsefaglig forskning, slik dette forstås i helseforskningslovens § 4. Det er komiteens vurdering at selv om prosjektet hovedsakelig er en nyttig kartlegging av opplevd trakassering i videregående skole, inneholder også søknaden og protokollen klare hypoteser relatert til helse. Prosjektet er dermed behandlet med hjemmel i helseforskningsloven.

Det er liten tvil om at spørsmålene i denne studien er av ganske inngående karakter. Noen vil helt sikkert reagere på språk og innhold, mens andre vil ha et avklart forhold til det samme innholdet. Det er på forhånd vanskelig å vurdere i hvilken grad det sensitive innholdet vil påvirke deltakerne. Den virkelige etiske utfordringen ved studien, slik komiteen ser det, er de elevene og ansatte som selv har opplevd den typen overgrep prosjektet omhandler. Også deres reaksjonsmønster er vanskelig å vurdere i forkant.

Det er imidlertid skissert en beredskap som er godt tilpasset studiens omfang. Søker anfører selv at det vil være økt beredskap fra skolenes rådgivningstjeneste og helsesøsterordning i perioden studien pågår, og det vil være mulig å kontakte kompetent personell på kveldstid. Selve studiens gjennomføres i skjermede omgivelser. Det er kun en personlig PIN-kode som vil kunne identifisere den enkelte, og slik reduserer man også muligheten for tilfeldig identifisering. Frivilligheten i prosjektet understrekes både i informasjonen som gis, og i første skjermbilde ved undersøkelsens start.

Basert på det ovennevnte mener komiteen studien fremstår som forsvarlig.

Vedtak

Prosjektet godkjennes, jf. helseforskningslovens §§ 9 og 33.

Tillatelsen er gitt under forutsetning av at prosjektet gjennomføres slik det er beskrevet i søknaden og protokollen, og de bestemmelser som følger av helseforskningsloven med forskrifter.

Tillatelsen gjelder til 31.12.2013. Opplysningene skal deretter slettes eller anonymiseres, senest innen et halvt år fra denne dato.

Komiteens avgjørelse var enstemmig.

Forskningsprosjektets data skal oppbevares forsvarlig, se personopplysningsforskriften kapittel 2, og Helsedirektoratets veileder for Personvern og informasjonssikkerhet i forskningsprosjekter innenfor helse og omsorgssektoren.

Vi ber om at alle henvendelser sendes inn med korrekt skjema via vår saksportal: http://helseforskning.etikkom.no. Dersom det ikke finnes passende skjema kan henvendelsen rettes på e-post til: post@helseforskning.etikkom.no.

Sluttmelding og søknad om prosjektendring

Prosjektleder skal sende sluttmelding til REK sør-øst på eget skjema senest 30.06.2014, jf. hfl. § 12. Prosjektleder skal sende søknad om prosjektendring til REK sør-øst dersom det skal gjøres vesentlige endringer i forhold til de opplysninger som er gitt i søknaden, jf. hfl. § 11.

Klageadgang

Du kan klage på komiteens vedtak, jf. forvaltningslovens § 28 flg. Klagen sendes til REK sør-øst. Klagefristen er tre uker fra du mottar dette brevet. Dersom vedtaket opprettholdes av REK sør-øst, sendes klagen videre til Den nasjonale forskningsetiske komité for medisin og helsefag for endelig vurdering.

Med vennlig hilsen

Arvid Heiberg prof. dr.med
leder REK sør-øst C

Tor Even Svanes
seniorrådgiver

Kopi til: jan.dyrstad@svt.ntnu.no