



**Universiteit Utrecht**

**Relationships between Casual Sex, Self-esteem, and  
Psychological Well-being among Dutch Female  
Students.**

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### **Abstract**

Lately, casual sex appears to have become the normative standard, replacing traditional dating among college students. Casual sex is defined as a non-romantic relation, where explicitly no promise concerning a romantic relationship and no agreements concerning behaviour of both parties are made. It is comprised of a broad range of behaviours, such as heavy kissing, petting, oral sex, anal sex, mutual masturbation and/or intercourse. In the US, concerns are widespread with respect to this behaviour: researchers believe it would lead to physical and psychological distress. The first part of the present study focused on frequencies in which female Dutch students participated in casual sex, and if risk-behaviour occurred when participating in casual sex. The second part of the study focused on casual sex among Dutch female students, and tried to establish whether self-esteem is a moderating factor for the consequences of casual sex. A sample of 108 Dutch female college students completed an online survey, which included items concerning casual sex, self-esteem, risk behaviour and psychological wellbeing. Results revealed that 78.6% of the students were involved in casual sex within the past year, which is in line with studies performed in the US. The perception of casual sex was fairly positive, with a mean score of 6.92, when rated between 0 (negative experience) and 10 (positive experience). No associations between casual sex and psychological wellbeing were found. Furthermore, self-esteem was found not to be a moderating factor between casual sex and psychological wellbeing.

*Keywords:* casual sex, self-esteem, risk-behaviour, psychological wellbeing, Dutch female students.

## **Preface**

First of all, I want to thank Femke van den Brink for her guidance through this project, providing new insights concerning the conduction of the research, and for always being there to answer my questions. Also, I want to thank my fellow students, Stephanie van de Brug, Lieke Meinema, and Anne-Marie van der Klugt: It really helped to be able to discuss the topics with them, and receive feedback about the projects. Furthermore, their positive attitudes lightened the stress involved when writing this thesis. At last, I want to thank Vincent Kreuzen for the unconditional love, emotional support and help with the English language. My hope is that this research will provide new insights about sexual behaviour among Dutch students.

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## Introduction

Ever since the start of the 21<sup>st</sup> century, it seems like the dawn of a new era when it comes to sexual behaviour (Arnett, 2004; in Monto & Carey, 2014). This phenomenon is also called the 'hook-up' culture (Rosin, 2012). It seems to have become the normative form for intimacy among American college students (Kalish & Kimmel, 2011). The casual sex behaviour which is found in the hook-up culture is defined as a non-romantic relation with explicitly no promise of a romantic relationship, and with no agreement on which behaviour will occur. It can range from a broad kind of behaviours like heavy kissing, petting, oral sex, anal sex, mutual masturbation and/or intercourse (Bersamin, et al, 2014; Garcia & Reiber, 2008; Lewis, Granato, Blayney, Lostutter, & Kilmer, 2011; Monto & Carey, 2014; Paul & Hayes, 2002; Paul, McManus, and Hayes, 2000). In the literature, these casual sexual encounters are often referred to as friends with benefits, hook-ups (Eisenberg, Ackard, Resnick, & Neumark,-Sztainer, 2009), one and done, and sex buddies (Kalish & Kimmel, 2011). Casual sex is mostly performed with a friend (55.7%), but it is also performed with acquaintances (34.6%) and with strangers (35.4%) (Monto & Carey, 2014).

Previous studies found high frequencies of casual sex amongst students. Paul et al. (2000) found that 78% of the students reported having casual sex. For males, 47.5% also experienced intercourse when having casual sex, whereas for females, 33.3% had engaged in intercourse. Garcia, Reiber, Massey, and Merriwether (2012) reported that up to 80% of the college students experienced one or more casual sex acts. Most of these studies were performed under college students. It can be reasoned that the likeliness of these phenomena to occur, is largely influenced by the age and the environment the students find themselves in. Arnett (2000) called this 'the period of emerging adulthood'. It is a time wherein emerging adults become independent from social roles and normative expectations. It is a time of exploration in love and sexuality. College environments encourage sexual permissiveness (Paul et al., 2000), and therefore casual sex behaviour. The research of Fielder, Carey and Carey (2013) showed that before college, 34% of the students involved in casual sex. During the first year of college, this number went up to 40%. Between 7% and 18% of the students experienced casual sex every month.

Although casual sex is considered to be a widespread phenomena in the Western world (GSS; Smith, Marsden, Hout, & Kim, 1972–2012), these studies are mostly conducted in the US. In the Netherlands, studies about casual sex are scarce, which makes it difficult to

compare casual sex behaviour. There is good reason to suspect that there is a difference between the US and the Netherlands in sexual behaviour: In the Netherlands, there is a more permissive way to deal with sexuality among emerging adults. Parents are more open towards their children to discuss sex, and proclaim sexual behaviour as an act of love, which adolescents and emerging adult are able to experience. Parents in the US tend to explain sex as a pure biological process, something their children should stay abstinent from (Schalet, 2004). The study of Brugman, Caron and Rademakers (2010) confirmed that Dutch females would involve in sexual behaviour for intrinsic motives, such as love, in contrast to females from the US whom involved in sexual behaviour for extrinsic motives, such as peer pressure.

There are a lot of concerns when it comes to casual sex. This behaviour could be harmful to the mental and physical health of youth (Bersamin et al., 2014; Eisenberg et al., 2009; Eshbaugh & Gute, 2008; Paul et al., 2000; Vrangalova, 2015). Embarrassment, regret, higher levels of anxiety and depression are found by some studies which measured the influence of casual sex on well-being (Eshbaugh & Gute, 2008; Lewis, et al., 2012). This negative effect could be due to lack of commitment, which fails to satisfy the human need to belong (Baumeister & Leary, 1995). Furthermore, casual sex is associated with sexual risk-behaviour. College students tend to drink alcohol or use drugs before having casual sex (Claxton, DeLuca, & van Dulmen, 2006; Cooper, 2002). Being under influence of alcohol/drugs will lead to lesser safety behaviours, such as using a condom, and therefore, increase the risk of sexual transmitted diseases (STD's) or unwanted pregnancies (Cooper, 2002). Especially for women, casual sex seems to have negative consequences. This could be due to the sexual double standard. This view suggest that males are praised and respected for their sexual behaviour whereas females will be derogated and disrupted for the same behaviour (Marks, & Fraley, 2006). Thus, when women are participating in casual sex, it will be perceived in a more negative way than when men are involved (Armstrong, Hamilton, & England, 2010). The study of Reid, Elliot and Webber (2011) supported this theory, and found that women were more likely to be judged negatively when involved in casual sex than men. Grello et al., (2010) also found that women had higher depression levels after casual sex than men, and other studies have shown that women expressed more regret (Fisher et al., 2011). Furthermore, psychological distress is higher in women when involved in casual sex (Fielder & Carey, 2010). These findings make women the subject of interest when it comes to casual sex.

Even though past literature focused on the negative sides of casual sex, an extensive base of research did not find negative consequences (Eisenburg et al, 2009; Fielder & Carey,

2010<sup>a</sup>; Grello et al., 2003; Owen et al., 2011; Vrangalova, 2015; Vrangalova & Ong, 2014). Lewis et al. (2012) even found that students, men and women alike, experienced larger positive effects than negative after their last casual sex encounter. An explanation is that casual sex could be a way to find enjoyment outside of busy college life, and that it was a way to explore one's sexuality before settling with a single partner (Kalish & Kimmel, 2011). Vrangalova (2015) offered that there are moderating factors involved to make casual sex a positive or negative experience. When motives for casual sex were taken into account, it was found that only high non-autonomy, which is acting out of extrinsic motives such as peer pressure, was linked to negative consequences, such as lower self-esteem and higher levels of depression.

These findings show that it might be possible that there is not only a direct link between casual sex and the wellbeing of students. Identifying such factors is important in selecting the appropriate targets for preventing psychological health issues related to sexual behaviour. Self-esteem is a possible factor involved in this outcome. Self-esteem is the evaluation of the self, and people tend to keep a high self-esteem and defend it when it becomes threatened (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). It was found that emerging adults with lower self-esteem tend to engage in casual sex faster than emerging adults with high self-esteem (Paul et al., 2000). This implies that it was not casual sex which would lead to lesser well-being, but that low self-esteem made casual sex a negative experience (Paul et al., 2000). People with lower self-esteem tend to rather act out of extrinsic motives (peer pressure, partner pressure) and have lower self-worth, than people with high self-esteem (Kernis, 2006). As Vrangalova (2015) already discovered, when acting out of intrinsic motivation, casual sex did not have any negative consequences, but when acting out of extrinsic motivation there were negative consequences. Furthermore, high self-esteem relates to a higher psychological well-being (Paradise & Kernis, 2009), where psychological well-being refers to an individual's evaluative reactions to his or her life (Diener & Diener, 2009). The sociometer theory (Leary, 1995) and stress buffering theory (Cohen, & Wills, 1985) could further explain as to why self-esteem may moderate the negative effects that were found in previous literature concerning casual sex.

According to the sociometer theory, self-esteem consists of how a person perceives their relational value. When someone perceives a high level of relational value, their self-esteem will be high, in contrast to when someone perceives a low level of relational value, which results in low self-esteem (Leary, 2005). It could be said that someone with high self-esteem will perceive good social support. The stress buffering theory explains how social

support influences general well-being. The stress one can experience from an event will be moderated by the amount of social support a person receives (Cohen, & Wills, 1985). Since people with high self-esteem tend to perceive more social support, the amount of stress should be perceived as less. These theories could be an explanation for the contradicting findings about the influence of casual sex on psychological well-being. In this case, self-esteem is a buffer for the negative effects of casual sex, and can enhance the positive effects sexual interactions can bring.

The present study will have two main focuses. Firstly, it will be studied whether findings in the US are replicable with female Dutch students concerning casual sex among female Dutch students and the risk behaviours that are linked to casual sex. Casual sex will therefore be interpreted as: a sexual behaviour which consist of oral, anal, or vaginal contact with a partner with whom one is not romantically involved and with whom there are no expectations of a romantic relationship. This is in agreement with most literature (Bersamin et al, 2014; Lewis et al., 2011; Paul & Hayes, 2002; Paul et al., 2000; Monto & Carey, 2014). Kissing and petting were excluded from the definition of casual sex since it had significant lesser impact on the person involved in hook-up behaviour than the other aforementioned behaviours (Fisher et al., 2011). Since casual sex seems to be the most negative for women, this study will focus on female students. For the second part of the study, it will be tested whether self-esteem is a moderating factor in the relationship between casual sex and psychological well-being. The following hypothesis will be tested: The association between casual sex and psychological wellbeing is moderated by self-esteem. It is expected that lower self-esteem will lead to more negative effects of casual sex on psychological wellbeing, and that high self-esteem will lead to higher psychological wellbeing (Cohen & Wills, 1985; Leary, 2005; Paul et al., 2000).

## **Method**

### **Participants & Procedure**

This present study was part of a larger study, from which three assessments were extracted and used for the current study. The study was about sexuality among female students, with as main subjects: casual sex, risk-behaviour, self-esteem and psychological well-being.

The participants were recruited through a website on the internet, and by distributing flyers. The website of the University of Utrecht provided a link to the questionnaire. Lime-survey was used to create the online copy of the assessments used for this study. Participating in the study would take participants around 45 minutes of their time. Students signed up for participation through a special website only accessible to students, listing all available studies. The assessment started with an introduction text and an informed consent. The informed consent is found in Appendix 1. First, participants were asked to submit their demographic information. After this, participants were linked to the questionnaires. At the University of Utrecht, bachelor students are required to spend a minimum of 10 hours as a research participant in scientific studies. Completion of the study automatically resulted in crediting an hour to the account of the participant.

Inclusion criteria for participation were: female gender, at least 18 years of age, sexually active (now or in the past), single at the time of participation, and a student at a Dutch university.

A total of 126 Dutch students participated in this study. Eight participants were excluded from further analysis because of the gender, another seven participants were excluded because they did not study at a Dutch university, and lastly, three students were excluded from the study because of the absence of previous sexual experience with a partner. The final sample consisted of 108 women. Ages ranged from 18 to 30 years ( $M = 20.92$ ,  $SD = 2.21$ ). The large majority of the sample (87%,  $n = 94$ ) reported being heterosexual, 2.8 % ( $n = 3$ ) were homosexual, 8.3 % ( $n = 9$ ) were bisexual, and 1.9 % ( $n = 2$ ) did not have a defined sexual orientation. In this sample, 18.5 % ( $n = 20$ ) was living at their parental home, and 81.5% ( $n = 88$ ) was living at a combined home with other students.

## Materials

### Casual sex behaviour

To measure casual sex behaviour, seven open ended questions were posed. These questions are in line with the questions in the study of Lyons et al., (2013). The following questions were asked in Dutch: “How many times did you have casual sex in the previous year?”, “How many times did you have casual sex in your lifetime?”. To have an indication as to how Dutch students perceive casual sex, they were also asked to rate their experience with the following question: “On a scale from 0 (Negative) to 10 (Positive), how would you rate your casual sex

experience?”. Because the type of partner can influence how casual sex is perceived (Fisher et al., 2011), four questions covered this topic: “How many times was your casual sex partner someone you just met that week?”, “How many times was your casual sex partner an acquaintance?”, “How many times was your casual sex partner a friend?”, “How many times was your casual sex partner an ex-partner?”.

### **Risk Behaviour**

Risk behaviour over the past year was measured through seven questions commonly associated with risky behaviour, such as condom use, variable sex partners, alcohol use, drug use, and use of contraception. Each item was scored on a scale of two ( $1=Yes$ ,  $2=No$ ). The questions were based on prior literature concerning sexual risk behaviour (Goenee, Kedde, & Picavet, 2012; van Oefelen et al., 2015). An example of a question is: “In the past year, have you had sex with a new or casual partner without the use of a condom?”. A complete list of the questions in Dutch is found in Appendix 3.

### **Self-esteem**

The Dutch translation (Everaert, Koster, Schacht, & de Raedt, 2010) of the Rosenberg’s Self-esteem Scale (RSES) (Rosenberg, 1965) was used to measure the construct self-esteem. The RSES measures the overall evaluation of the self (Rosenberg, 1979 in Everaert, et al., 2010). The RSES consist of ten items grouped into one domain. Each item was scored on a 4-point disagree-agree Likert scale. A total score was obtained by summing the scores. Higher scores indicated higher self-esteem. An example of an item is: “I am able to do things as well as most other people”. The psychometric value of the translated assessment has been judged as good with a internal consistency with  $\alpha = .86$ , and good construct validity (Frank et al, 2008 in Everaert, et al., 2010). In the present study, Cronbach’s alpha for this scale was  $\alpha = .87$ .

### **Psychological wellbeing**

Psychological wellbeing was measured with the translated version (Arrindell, Heesink, & Feij, 1999) of the Satisfaction With Life Scale (SWLS)(Diener, Emmons, Larsen, & Griffin, 1985). The SWLS measures satisfaction with life as a cognitive-judgemental process instead of measuring satisfaction in specific domains (marital status, health, wealth) (Diener et al., 1985). The SWLS consist out of five items grouped into one domain. Each item was scored on a 5-point agree-disagree Likert scale. A total score was obtained by summing the scores. A higher score indicated higher psychological wellbeing. An example of an item is: “On most points my life is almost perfect.”. The translated scale had a good discriminative construct

validity when compared to marital status and it has a internal reliability of Cronbach's Alpha  $\alpha = .82$  (Arrindell, et al., 1999). In the present study, Cronach's Alpha for this scale was  $\alpha = .71$

### Data-analysis

The current data was analysed with IBM SPSS Statistics Data Editor 23 (2013). For the first part of the study, a frequency analysis will be conducted to get a general overview of casual sex behaviour among Dutch students. The same analysis was used to investigate risk behaviour among students who had casual sex over the past year. To investigate whether self-esteem had a moderating effect on psychological well-being when involved in casual sex, a multiple regression model was tested. After centring casual sex in the past year and self-esteem, and computing a casual sex-by-self-esteem interaction term, the two predictors and the interaction term were entered into a simultaneous regression model.

## Results

### Percentages of students involved in casual sex

Table 1 shows an overview of the casual sex behaviour of 108 Dutch female students who participated in the study. The findings indicate that casual sex behaviour is also prominent among Female Dutch students. Figure 1. shows the ratings of casual sex experience of the participants. Most participants rated casual sex as a positive experience ( $M = 6.92$ ,  $SD = 1.38$ ).

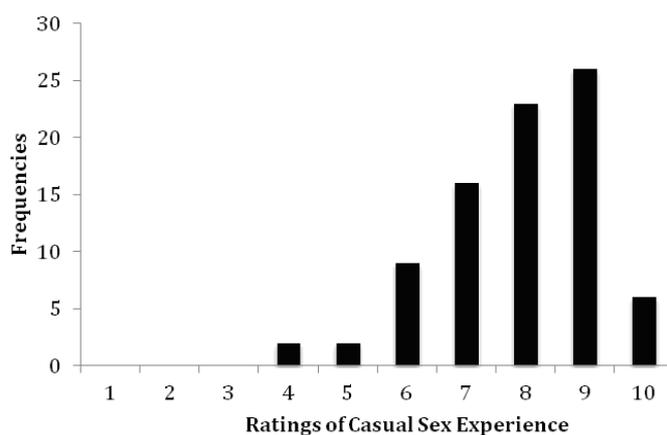


Figure 1. Frequencies of the ratings female students gave their casual sex experience.

Table 1.

*Descriptive statistics. Number of participants (N), Mean of times the behaviour is performed (M, SD), Percentage of number of participants (%) for the casual sex questions.*

Number of participants	Casual sex		number of casual sex partners (SD)
	N	%	
Casual sex in a lifetime	95	88	4.57 (4.78)
Casual sex the past year	85	78.7	2.12 (2.01)
Casual sex with someone met a week ago	53	49.1	1.12 (1.63)
Casual sex with an acquaintance	50	46.3	0.95 (1.42)
Casual sex with a friend	35	32.4	0.50 (0.97)
Casual sex with an ex-partner.	15	13.9	0.16 (0.44)

### **Casual sex and risk-behaviour**

Table 2. shows risk-behaviour among the students who had casual sex ( $n = 83$ ). The results can not show a relationship between casual sex and risk-behaviour, but there is an indication that risk-behaviour is common with students who have casual sex. Most important was that high percentage of students were under influence of alcohol during casual sex, and that high percentage of students did not use condom during casual sex.

Table 2.

*An overview of risk behaviour. Only the participants who were involved in casual sex the past year were taking in account.*

Risk-behaviour of the past year	Participants involved in risk-behaviours	
	<i>N</i>	%
Did not use a condom with a casual sex partner	47	55.3
Had different sexual contacts	38	44.7
Had been tested on STD	38	44.7
Had had an STD	3	3.5
Used other forms of anti-conception than condoms	77	90.6
Has had a unwanted pregnancy	0	0
Had sex under influence of alcohol	76	89.4
Had sex under influence of drugs	17	20

### **Self-esteem as moderating effect on Psychological well-being when involved in casual sex**

A Pearson correlation for the data revealed a significant relationship between self-esteem and psychological well-being.  $r = + 0.330$ ,  $n = 108$ ,  $p < .000$ , two tails. There were no significant correlations found for the relationship between casual sex, in the past year and, psychological

wellbeing,  $r = +0.086$ ,  $n = 108$ ,  $p = .374$ , two tails, and casual sex, in the past year, and self-esteem,  $r = +0.183$ ,  $n = 108$ ,  $p = .058$ , two tails.

The analysis of variance indicates that there are significant differences,  $F(3, 104) = 5.453$ ,  $p < .05$ ,  $\eta^2 = .136$ . In contrast with the hypothesis, there was no moderating effect of self-esteem on psychological wellbeing when involved in casual sex, in the past year ( $b = .088$ ,  $SEb = .049$ ,  $\beta = 1.294$ ,  $t = 1.790$ ,  $p = .076$ ). Results did indicate that self-esteem ( $b = -.535$ ,  $SEb = .158$ ,  $\beta = -.589$ ,  $t = 3.376$ ,  $p < .001$ ) was associated with psychological wellbeing, while casual sex in the past year ( $b = -2.701$ ,  $SEb = 1.554$ ,  $\beta = -1.278$ ,  $t = -1.739$ ,  $p = .085$ ) did not indicate an association with psychological well-being.

## Discussion

The current study focused on casual sex among Dutch female students. There is a large base of research concerning casual sex, why students engage in it, and what the consequences are of this behaviour. But most of this research is performed in the U.S. The general belief is that this phenomenon is the new form of dating for college students (Kalish & Kimmel, 2011). The current study found that Dutch students involve in casual sex (78.7%) just as much as U.S. students do (78%) (Paul et al., 2000). However, when specifically considering female college students, and casual sex behaviour which excludes kissing and petting, US female students reported lower rates of casual sex (25-40%) than Dutch female students (Fielder et al., 2012). Another difference between Dutch students and US. students, is that Dutch students are more likely to choose a stranger to involve in casual sex, while U.S. students generally prefer a friend (Monto & Carey, 2014).

In the U.S., there is a negative focus when it comes to casual sex. Females show higher levels of psychological distress and regret after having casual sex (Fielder & Carey, 2010; Fisher et al., 2011; Reid et al., 2011). When asked to judge their casual sex experience, 48.7% of U.S. (Owen, et al., 2010) students reported a positive reaction to casual sex. It is interesting that female students in the Netherlands seem to be quite positive about their casual sex experience. Only 14.8% rated their experience more negative than positive. This could be due to the difference in intrinsic and extrinsic motivation to involve in casual sex. As the study of Brugman et al. (2010) showed, Dutch females would involve in sexual behaviour for intrinsic motives, while US. females would involve in sexual behaviour because of peer pressure, or partner pressure. This could also account for casual sex behaviour. Vrangalova

(2015) found that only non-autonomous motives would lead to negative consequences. This could explain the negative response to casual sex in the US. Because no direct comparison was tested between Dutch female students and US. female students, and there are no studies which test the motives of Dutch students for having casual sex, these conclusions are still hypothetical.

The sexual risk-behaviour among Dutch students seems to be just as common as in the US. Even though Dutch students always used some form of anti-conception, condoms were only used by half of the participants, which make the students more vulnerable to STD's. In line with U.S. college students, casual sex was mostly paired with alcohol use, and sometimes with drug use (Claxton & Dulmen, 2015; Grello et al., 2006). Only a small portion of the participants reported having a STD in the past year, and none of the participants reported unwanted pregnancies. The findings of low rates of condom usage could be explained by the fact that students don't see themselves as a risk-group for STD's. Thereby, living a sexual risky lifestyle in college is socially acceptable (Chanakira, O'Cathain, Goyder, & Freeman, 2014).

For the second part of this study, it was tested if self-esteem was a moderating factor of casual sex on psychological wellbeing. The results did, surprisingly, not find any effects, even though it was predicted from prior research that self-esteem would be a protective factor for negative consequences of casual sex, and therefore a positive effect on psychological wellbeing was predicted by high self-esteem, and a negative effect on psychological wellbeing was predicted by low self-esteem (Cohen & Wills, 1985; Leary, 2005; Paul et al., 2000). A review from Goodson, Buhi, and Dunsmore (2006) concluded that self-esteem may not have a protective factor when it comes to sexual behaviour, since 60% of the articles, which were included in the review, did not find an effect of self-esteem on sexual behaviour. Furthermore, it was even said that high self-esteem will lead to more experimenting behaviour and alcohol use. Another reason for not finding any effects, comes from the article of Rosenberg, Schooler, Schoenbach, and Rosenberg (1995), which states that global self-esteem, which was used in the present study and used in most literature about sexual behaviour, only has a minimal influence on behaviour outcomes, and specific self-esteem has a greater impact on behaviour.

The present results must be considered in light of some limitations. At first, the present study may have been influenced by volunteer bias. Wiederman (1999) found that college students that were more experienced in sex, would sooner volunteer for a study involving topics in sexuality. These students mostly portrayed higher sexual self-esteem, and were

younger when they had their first sexual experience. These factors may have influenced results of the present study. Research has already shown that casual sex was related to early sexual experience (Mikach & Bailey, 1999; Grello et al., 2006). Together with the research of Wiederman, this implies that students with low self-esteem and experience with casual sex would be less likely to have participated in the current study. This makes the results biased. Another problem of the study is that there is a possible underreporting of STD's and unwanted pregnancies. As Brener, Billy, and Grady (2003) concluded, participants reported lower rates of STD's and unwanted pregnancies in self-reports when compared to their clinical reports. Therefore it is a possibility that there is an underreporting of STD's and unwanted pregnancies in the current study. A third limitation was that the study used retrospective reporting for casual sex. As Brener et al. (2003) reported, high frequencies of sexual behaviour will be less likely to be remembered when the length of the period of sexual activity increases. Low frequencies of sexual behaviour do not show this problem as strongly. Lastly, the causality of the present study poses a limitation. Because the study had a cross-sectional design, it is not possible to find a causal relationship. Longitudinal designs should be performed in future research to reveal causal relationships. This would also solve the problem with retrospective reporting.

Summarizing, casual sex does not seem to be psychologically damaging for Dutch students, and it does not seem to have positive outcomes for psychological wellbeing. Casual sex seems to be paired with some risk behaviour, and there are still reasons to see this behaviour as worrying, because of the higher risk of spreading STD's and higher possibilities of unwanted pregnancies. Results of the current study could go against the dramatizing of casual sex by the US media. But it should also not be used to promote participation in casual sex, because there are still some risks with the behaviour. In particular, health care should focus on the consequences for physical health by participating in casual sex. Only adolescent youngsters are provided with sexual education and the importance of using protection during sexual activity, whereas college students seem to be believed to self-regulate safety behaviours, even though research indicates otherwise. Risk involved with casual sex in college should be made aware by college students. It could also help if students gain easy access to health care services for screening and treating STD's.

Furthermore, future research should focus on the motives for casual sex, and comparisons between US students are necessary to conclude if there is a difference between Dutch students involved in casual sex, and US students. If more research is performed concerning casual sex and the influence of self-esteem on this behaviour, more attention

should be brought to which form of self-esteem will be tested. Testing with specific self-esteem, such as sexual self-esteem, is necessary to measure the effect of self-esteem on sexual behaviour.

The final conclusion is that casual sex, and therefore 'The hook-up culture', is present in the Netherlands among college students, but there are no direct reasons to be worried about the psychological health. As Kalish & Kimmel (2011) said, it could just be a way to explore one's sexuality and a relaxing way to get out of the stressful college life.

### References

- Armstrong, E.A., Hamilton, L., & England, P. (2010). Is hooking up bad for young women? *Contexts*, 9, 22-27, doi: 10.1525/ctx.2010.9.3.22.
- Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469-480 doi: 10.1037/0003-066X-55.5.469
- Arrindell, W.A., Heesink, J. & Feij, J.A. (1999). The Satisfaction With Life Scale (SWLS): appraisal with 1700 healthy young adults in the Netherlands. *Personality and Individual Differences*, 26, 815-826 doi: 10.1916/S0191-8869(98)00180-9
- Baumeister, R.F., & Leary, M.R., (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 3, 497-529 doi: 10.1037/0033-2909.117.3.497
- Bersamin, M.M., Zamboanga, B.L., Schwartz, S.J., Donnellan, M.B., Hudson, M., Weisskirch, R.S., Kim, S.Y., Agocha, V.B., Whitbourne, S.K., & Caraway, J. (2014). Risky Business: Is there an association between casual sex and mental health among emerging adults? *The Journal of Sex Research*, 51, 43-51 doi: 10.1080/00224499.2013.772088
- Brener, N.D., Billy, J.O.G., & Grady, W.R. (2003). Assessment of factors affecting the validity of self-reported health-risk behaviour among adolescents: Evidence from the scientific literature. *Journal of Adolescent Health*, 33, 436-457 doi: 10.1016/S1054-139X(03)000052-1
- Brugman, M., Caron, S.L., Rademakers, J. (2010) Emerging adolescent sexuality: a comparison of American and Dutch college women's experiences. *International Journal of Sexual Health*, 22(1), 32-46 doi: 10.1080/19317610903403974
- Chanakira, E., O'Cathain, A., Goyder, E.C., & Freeman, J.V. (2014). Factors perceived to influence risky sexual behaviours among university students in the United Kingdom: a qualitative telephone interview study. *BMC Public Health*, 14, doi: 10.1186/1471-2458-14-1055
- Claxton, S.E., DeLuca, H.K., & Dulmen, M.H.M. van. (2006). The association between Alcohol use and engagement in casual sexual relationships and experiences: A meta Analytic review of non-experimental studies. *Archives of Sexual Behaviour*, 44(4), 837-856 doi: 10.1007/s10508-014-0392-1
- Cohen, S., & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis.

- Psychological Bulletin*, 98(2), 310-357 doi: 10.1037/0033-2909.98.310
- Cooper, M.L. (2002). Alcohol use and risky sexual behavior among students and youth: Evaluating the evidence. *Journal of Studies on Alcohol*, 14, 101-117 doi: 10.15288/jsas.2002.s14.101
- Diener, E., & Diener, M. (2009). Cross-cultural correlates of life satisfaction and self-esteem. *Culture and Well-Being: The Collected Works of Ed Diener*, 38, 71-91 doi: 10.1007/978-90-481-2352-0\_4
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49, 71-75 doi: 10.1207/s15327752jpa4901\_13
- Eisenberg, M.E., Ackerd, M.D., Resnick, M.D., & Neumark-Sztainer, D. (2009). Casual sex and psychological health among young adults: Is having “friends with benefits” emotionally damaging? *Perspectives on Sexual and Reproductive Health*, 41(4), 231-237 doi: 10.1363/4123109
- Eshbaugh, E.M, & Gute, G. (2008) Hookups and sexual regret among college women. *The Journal of Social Psychology*, 148(1), 77-90, doi: 10.3200/SOCP.148.1.77-90
- Everaert, J., Koster, E.H.W., Schacht, R., & Raedt, R. de. (2010). Evaluatie van de psychometrische eigenschappen van de Rosenberg zelfwaardeschaal in een poliklinisch psychiatrische populatie. *Kort instrumenteel*. 307- 317
- Fielder, R.L., & Carey, M.P. (2010). Prevalence and Characteristics of sexual hookups among first-semester female college students. *Journal of Sex & Marital Therapy*, 36, 346-359 doi: 10.1080/0092623X.2010.488118
- Fielder, R.L., Carey, K.B., & Carey, M.P. (2013). Are hookups replacing romantic relationships? A longitudinal study of first-year female students. *Journal of Adolescent Health*, 52 (5), 657-659. doi: 10.1016/j.jadohealth.2012.09.001
- Fisher, M.L., Worth, K., Garcia, J.R., & Meredith, T. (2012). Feelings of regret following uncommitted sexual encounters in Canadian university students. *Culture, Health & Sexuality*, 14(1), 45-57 doi: 10.1080/12691058.2011. 619579
- Garcia, J.R., & Reiber, C. (2008). Hook-up behaviour: A biopsychosocial perspective. *Journal of Social, Evolutionary, and Cultural Psychology*, 194-208 doi: 10.1037/h0099345
- Garcia, J.R., Reiber, C., Massey, S.G., & Merriwether, A.M. (2012). Sexual hookup culture: A review. *Review of General Psychology*, 16(2) 161-176 doi: 10.1037/a0027911
- Goenee, M., Kedde, H., & Picavet, C. (2012). Condoomgebruik en testgedrag in Nederland.

*Tijdschrift voor Seksuologie*, 36(2), 109-120

- Goodson, P., & Buhi, E.R., & Dunsmore, S.C. (2006). Self-esteem and adolescent sexual behaviors, attitudes, and intentions: a systematic review. *Journal of Adolescent Health*, 38, 310-319 doi: 10.1016/j.jadohealth.2005.05.026
- Grello, M.C., Welsh, D.P., & Harper, M.S. (2006). No strings attached: The nature of casual sex in college students. *The Journal of Sex Research*, 43(3), 255-267 doi: 10.1080/224490609552324
- Marks, M.J., & Fraley, R.C. (2006). Confirmation bias and the sexual double standard. *Sex Roles*, 54, 19-26 doi: 10.1007/s11199-006-8866-9
- Monto, M.A., & Carey, A.G. (2014). A new standard of sexual behavior? Are claims associated with the “hookup culture” supported by general social survey data? *The Journal of Sex Research*, 51(6), 605-615 doi: 10.1080/00224499.2014.906031
- Kalish, R., & Kimmel, M. (2011). Hooking up. *Australian Feminist Studies*, 26(67), 137-151 doi: 10.1080/08164649.2011.6333
- Leary, M.R. (2005). Sociometer theory and the pursuit of relational value: Getting to the root of self-esteem. *European Review of Social Psychology*, 16(1), 75-111, doi: 10.1080/10463280540000007
- Leary, M.R., Tambor, E.S., Terdal, S.K., & Downs, D.L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, 68(3), 518-530 doi: 10.1037/0022-3514.68.3.518
- Lewis, M.A., Granato, H., Blayney, J.A., Lostutter, T.W., & Kilmer, J.R. (2012). Predictors of hooking up sexual behaviours and emotional reactions among U.S. students. *Archives of Sexual Behaviour*, 41, 1219-1229 DOI 10.1007/s10508-011-9817-2
- Lyons, H., Manning, W., Giordano, P., & Longmore, M. (2013). Predictors of heterosexual casual sex among young adults. *Archives of sexual behaviour*, 42(4), doi:10.1007/s10508-012-0051-3.
- Mikach, S.M., & Bailey, J.M. (1999). What distinguishes women with unusually high numbers of sex partners? *Evolution and Human Behavior*, 20(3), 141-150 doi: 10.1016/S1090-5138(98)00045-2
- Oeffelen van, A.A.M., Aar van, F., Broek van den, I.V.F., Coulo op de, E.L.M., Woestenberg, P.J., Heijne, J.C.M, Daas den, C., Hofstraat, S.H.I., Sighem van, A.I., Nielen, M.M.J., & Benthem van, B.H.B. (2015). Sexually transmitted infections, including HIV, in the Netherlands in 2014. *National Institute for Public Health and the Environment*. ISBN: 978-90-6960-279-0

- Owen, J., & Fincham, F.D. (2010). Effects of gender and psychosocial factors on “friends with benefits” relationships among young adults. *Archives of Sexual Behaviour*, 40, 311-320 doi: 10.1007/s10508-010-9611-6
- Paradise, A.W., & Kernis, M.H. (2002). Self-esteem and psychological well-being: Implications of fragile self-esteem. *Journal of Social and Clinical Psychology*, 21(4), 345-361 doi: 10.1521/jscp.21.4.345.22598
- Paul, E.L., McManus, B., & Hayes, A. (2000) “Hookups”: Characteristics and correlates of college students' spontaneous and anonymous sexual experiences. *The Journal of Sex Research*, 37(1), 76-88, doi: 10.1080/00224490009552023
- Paul, E.L., & Hayes, K.A. (2002). The casualties of ‘casual’ sex: A qualitative exploration of the phenomenology of college students’ hookups. *Journal of Social and Personal Relationships*, 19(5), 639-661 doi: 10.1177/0265407502195006
- Pyszczynski, T., Greenberg, J., Solomon, S., Arndt, J., & Schimmel, J. (2004). Why do people need self-esteem? A theoretical and empirical review. *Psychological Bulletin*, 130(3), 435-468 doi: 10.1037/0033-2909.130.3.435
- Reid, J.A., Elliott, S., & Webber, G.R. (2011). Casual hookups to formal dates: Refining the boundaries of sexual double standard. *Gender & Society*, 25(5), 545-568 doi: 10.1177/0891243211418642
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995) Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*, 60, 141-156
- Rosin, H. (2012a). Boys on the side. Atlantic, November. Retrieved From <http://www.theatlantic.com/magazine/archive/2012/09/boys-on-the-side/309062/>
- Schalet, A. (2004). Must we fear adolescent sexuality? *Medscape General Medicine*, 6(4), Februari. Retrieved from [http://www.medscape.com/viewarticle/494933\\_print](http://www.medscape.com/viewarticle/494933_print)
- Smith, T. W., Marsden, P. V., Hout, M., & Kim, J. (1972–2012). General Social Surveys, 1972–2012 [Machine-readable data file]. Storrs, CT: Roper Center for Public Opinion Research, University of Connecticut [distributor]
- Vrangalova, Z. (2015). Does casual sex harm college students’ well-being? A longitudinal investigation of the role of motivation. *Archief of Sexual Behaviour*, 44, 945-959 doi: 10.1007/s10508-013-0255-1
- Vrangalova, Z., & Ong, A.D. (2014). Who benefits from casual sex? The moderating role of

sociosexuality. *Social Psychological and Personality Science*, 5(8), 883-891 doi: 10.1177/1948550614537308

Wiederman, M. W. (1999). Volunteer bias in sexuality research using college student participants. *Journal of Sex Research*, 36, 59–66 doi: 10.1080/00224499909551968

### **APPENDIX 1. Informed consent**

Welkom bij dit online vragenlijstonderzoek naar seksualiteit, lichaamsbeeld en zelfbeeld. Dit onderzoek wordt uitgevoerd door de Universiteit Utrecht in het kader van een masteronderzoek. Let op: voor deze studie zijn wij alleen op zoek naar vrouwelijke universitaire studenten van 18 jaar en ouder die in het verleden minimaal één seksuele partner hebben gehad. De vragen zullen gaan over bepaalde aspecten van seksualiteit, en gedachten en gevoelens die u heeft over uzelf en over uw lichaam. Er bestaan geen goede of foute antwoorden. Het invullen van de vragenlijsten zal ongeveer 45 minuten van uw tijd in beslag nemen. Psychologiestudenten aan de Universiteit Utrecht krijgen één proefpersoonuur toegekend wanneer zij aan het eind hun studentnummer en solis e-mailadres invullen. Het meedoen aan dit onderzoek is op vrijwillige basis en deelname kan op ieder moment beëindigd worden. Wanneer deelname vervroegd wordt beëindigd, wordt er geen proefpersoonuur toegekend en zal de gegeven informatie direct worden verwijderd. De informatie die u verschaft blijft geheel anoniem en zal enkel en alleen gebruikt worden voor wetenschappelijke doeleinden. Alvast bedankt voor uw deelname!

## APPENDIX 2. Casual Sex Questionnaire

Onderstaande vragen gaan over casual seks. Casual seks betreft orale, vaginale en anale seksuele activiteit met iemand waarmee je geen relatie hebt en er geen sprake is van verwachting tot een relatie. De relatie tot uw casual seks partner kan per keer verschillen. Denk hierbij aan vrienden, kennissen, iemand die u net ontmoet of een ex-partner.

1. Met hoeveel mensen heeft u ooit casual seks gehad?
2. Met hoeveel mensen hebt u casual seks gehad in het afgelopen jaar?
3. Hoeveel van deze casual seks partners had u maximaal een week voorafgaand aan de casual seks ontmoet?
4. Hoeveel van deze casual seks partners waren op dat moment kennissen van u?
5. Hoeveel van deze casual seks partners waren op dat moment vrienden van u?
6. Hoeveel van deze casual seks partners waren op dat moment ex-partners van u?

### APPENDIX 3. Sexual Risk Behaviour Questionnaire

#### Sexual Risk Behavior

Onderstaande vragen gaan over seksueel gedrag.

Beantwoord de vragen met 'ja' of 'nee'.

1. Heeft u in het afgelopen jaar zonder condoom geslachtsgemeenschap gehad met een nieuwe/losse partner (iemand die u net had ontmoet)?
2. Heeft u in het afgelopen jaar wisselende seksuele contacten gehad?
3. Bent u in het afgelopen jaar getest op een SOA?
4. is er in het afgelopen jaar een SOA bij u vastgesteld?
5. Heeft u in het afgelopen jaar een anticonceptiepil gebruikt?
6. Bent u ooit ongewenst zwanger geweest?
7. Was u in het afgelopen jaar (één of meerdere keren) tijdens de geslachtsgemeenschap onder invloed van alcohol?
8. Was u in het afgelopen jaar (één of meerdere keren) tijdens de geslachtsgemeenschap onder invloed van drugs?

**APPENDIX 4. Translated Satisfaction With Life Scale (SWLS)**

<b>De volgende vragen gaan over JOU. Zet een kruisje bij het antwoord dat het best past bij jouw eigen mening en ervaring.</b>	<b>helemaal mee Oneens</b>	<b>een beetje mee oneens</b>	<b>weet niet</b>	<b>een beetje mee eens</b>	<b>Helemaal mee Eens</b>
Op de meeste punten is mijn leven bijna perfect.					
Mijn levensomstandigheden zijn uitstekend.					
Ik ben tevreden met mijn leven.					
Tot nu toe heb ik de belangrijkste dingen die ik in het leven wil ook bereikt.					
Als ik mijn leven nog eens over mocht doen zou ik bijna niets veranderen.					

**APPENDIX 5. Translated version of the Rosenberg's Self-esteem Scale (RSES)**

Instructie:

"In hoeverre zijn de volgende uitspraken op u van toepassing? Het is de bedoeling dat u bij iedere uitspraak het voor u meest passende antwoord aanklikt"

De antwoordopties worden weergegeven bij iedere vraag (of bovenaan in een tabel). Bij de Rosenberg Self Esteem scale worden in de originele versie alleen de uiterste antwoordopties gelabeld (1=strongly agree, 4=strongly disagree). In sommige onderzoeken worden ook de tweede en derde optie gelabeld; 1=helemaal mee eens, 2=mee eens, 3=mee oneens, 4=helemaal mee eens.

**Rosenberg's Self-Esteem Scale – vertaling (Everaert et al., 2010).**

- 1 Over het algemeen ben ik tevreden met mezelf
- 2 Bij momenten denk ik dat ik helemaal niet deug (-)
- 3 Ik heb het gevoel dat ik een aantal goede kwaliteiten heb
- 4 Ik ben in staat dingen even goed te doen als de meeste andere mensen
- 5 Ik heb het gevoel dat ik niet veel heb om trots op te zijn (-)
- 6 Het is ongetwijfeld zo dat ik me bij momenten nutteloos voel (-)
- 7 Ik heb het gevoel dat ik een waardevol iemand ben, minstens evenwaardig aan anderen
- 8 Ik wou dat ik meer respect voor mezelf kon opbrengen (-)
- 9 Al met al ben ik geneigd mezelf een mislukking te voelen (-)
- 10 Ik neem een positieve houding aan ten opzichte van mezelf