



Youth's Socio-Sexual Competences With Romantic and Casual Sexual Partners

Daphne van de Bongardt & Hanneke de Graaf

To cite this article: Daphne van de Bongardt & Hanneke de Graaf (2020): Youth's Socio-Sexual Competences With Romantic and Casual Sexual Partners, The Journal of Sex Research, DOI: [10.1080/00224499.2020.1743226](https://doi.org/10.1080/00224499.2020.1743226)

To link to this article: <https://doi.org/10.1080/00224499.2020.1743226>



© 2020 The Author(s). Published with license by Taylor & Francis Group, LLC.



Published online: 27 Apr 2020.



Submit your article to this journal [↗](#)



Article views: 941



View related articles [↗](#)



View Crossmark data [↗](#)

Youth's Socio-Sexual Competences With Romantic and Casual Sexual Partners

Daphne van de Bongardt^a and Hanneke de Graaf^b

^aDepartment of Psychology, Education and Child Studies, Erasmus University Rotterdam; ^bProgramme Manager at Rutgers, Dutch Centre of Expertise on Sexual and Reproductive Health and Rights

ABSTRACT

We investigated youth's self-reported socio-sexual competences (esteem, assertiveness, control, communication) within their most recent sexual partnerships, and explored disparities in these competences between *romantic* versus *casual* sexual partnerships, including age and gender differences therein. Data were used from 6,098 Dutch adolescents and young adults (12.1–26.1 years), who participated in a national study on sexual health. Results indicated that being in love and sexual activity frequency were significant confounders for the associations between sexual partnership typology and youth's socio-sexual competence levels. After controlling for confounding relationship characteristics and sociodemographics, no differences were found between sexual partnership types in youth's sexual esteem, assertiveness, and control. However, *romantic* sexual partnerships were characterized by more frequent sexual communication than *casual* sexual partnerships. This pattern was gender-consistent, but for young adults, this difference in sexual communication across sexual partnership types was larger than for adolescents. Our findings emphasize that considering the relationship context (e.g., *romantic*, *casual*) for the development, utilization, and evaluation of young people's socio-sexual competences – particularly sexual communication – is a vital task for parents, educators, clinicians, and researchers. Individual (person-centered) versus relational (dyad-centered) differences in youth's socio-sexual competences require further exploration, as does the link between socio-sexual competences and sexual health and satisfaction.

Researchers have been paying increasing attention to young people's engagement in *casual sexual relationships and experiences* (CSREs), which include hookups, one-night stands, and friends with benefits (Claxton & Van Dulmen, 2013; Rodrigue et al., 2015). Overall, these studies have yielded valuable insight into the characteristics and qualities of young people's CSREs, such as the types of sexual activities, condom use, and sexual satisfaction (for literature reviews, see: Boislard et al., 2016; Garcia et al., 2012; Heldman & Wade, 2010). However, this knowledge does not provide a full understanding of the different types of sexual relationships in which youth may develop their sexuality, as the nature of such sexual relationships can nowadays vary widely across dimensions of, for instance: acknowledgment, agreement, and labeling; commitment, attachment, and exclusivity; duration and intensity; the central role of sexual activities; and the presence of feelings of romantic love and affection (Boislard et al., 2016; Crouter & Booth, 2006; Manning et al., 2005). Yet, despite the observed variability in characteristics of contemporary young people's sexual relationships, many youth typically have sex *within* the context of a *romantic relationship*, which is generally defined as a committed, long-term, love-centered, mostly monogamous, dyadic dating relationship with a boy- or girlfriend, and as such contrasts *casual* sexual relationships (Collins et al., 2009; Kan & Cares, 2006; Lehmler et al., 2014; Manning et al., 2005). In the Netherlands, 76% of youth have their first sexual intercourse with a romantic relationship partner (De Graaf et al., 2017).

Furthermore, for many Dutch youth, their dating relationship status is an important factor in their decision to initiate sexual intercourse (De Graaf et al., 2017). On the one hand, many sexually active youth (60% of the boys and 69% of the girls) mentioned that being in a dating relationship was an important reason for having intercourse for the first time (De Graaf et al., 2017). On the other hand, when non-sexually active youth were asked why they had *not* yet had sexual intercourse, 26% of the boys and 42% of the girls mentioned that they *first* wanted to be in a dating relationship for a while (De Graaf et al., 2017).

Despite these empirical observations, showing that romantic relationships are a normative (typical) context for the engagement in sexual behaviors for many youth, the existing literature demonstrates a remarkable gap in our knowledge of young people's sexual behaviors *within* romantic relationships. Scientific research on young people's experiences with intimacy has historically focused either on young people's romantic relationships, or on young people's sexuality. This has resulted in two strikingly independent research fields and bodies of literature that are in dire need for integration (Impett et al., 2014; Kan & Cares, 2006; Van de Bongardt et al., 2015). Some pioneering studies have begun to examine the characteristics, qualities, evaluations, and outcomes of—either expected or actual—sexual behaviors *within* adolescents' and young adults' romantic relationships (e.g., Choukas-Bradley et al., 2015; Heinrichs et al., 2009; O'Sullivan et al., 2007; Soller, 2014; Widman et al., 2006). Yet, we currently specifically observe

a gap in the literature regarding how the previously described conceptual differences between *different types* of youths' sexual partnerships (e.g., romantic versus casual) may in turn be related to differences in evaluative aspects, like satisfaction, as well as perceptions and behaviors related to sexual health (for exceptions, see: Higgins et al., 2011; McCarthy & Grodsky, 2011; Pedersen & Blekesaune, 2003; Wesche et al., 2017).

According to the current working definition of the World Health Organization (WHO, 2006), sexual health is considered "a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected, and fulfilled." In order to achieve sexual health, youth need to acquire *competences* that enable them to reduce risks, and to promote positive outcomes (Hirst, 2008; McKee et al., 2010; Vanwesenbeeck et al., 1999). As these competences are—at least in part—inherently dyadic or interactive, in the present study we label them as "socio-sexual competences." More specifically, based on the available data (further described below) and their relevance for sexual health, we distinguish four different socio-sexual competences: sexual esteem, assertiveness, control, and communication. *Sexual esteem* refers to the evaluation of the sexual self (e.g., being secure or confident about one's physical appearance or sexual performance; Brassard et al., 2015; Curtin et al., 2011; Maas & Lefkowitz, 2015; Oattes & Offman, 2007). *Sexual assertiveness* entails the ability to recognize, prioritize, and express one's own and the partner's sexual preferences during sexual interactions (e.g., convey physical, mental, emotional needs, and initiate desired sexual activities; Brassard et al., 2015; Curtin et al., 2011; Lee, 2017; Roberts Kennedy & Jenkins, 2011). *Sexual control* involves the ability to regulate sexual interactions, and often includes both self-regulation (e.g., conveying dislikes and limits, refusing unwanted sexual activities, insisting on protection activities) and partner regulation (e.g., talking, flattering, or seducing sexual partners into certain sexual activities regardless of their preferences; Vanwesenbeeck et al., 1998). *Sexual communication* encompasses the explicit and open discussion between sexual partners about sexual topics (e.g., condom and contraceptive use, STI testing, partners' sexual histories, sexual dislikes, and preferences; Lehmler et al., 2014; Oattes & Offman, 2007; Widman et al., 2014, 2006). All four of these socio-sexual competences have been empirically linked to sexual functionality (Brassard et al., 2015), sexual safety and health (Maas & Lefkowitz, 2015; Roberts Kennedy & Jenkins, 2011; Vanwesenbeeck et al., 1999; Widman et al., 2014, 2006), and relational and sexual satisfaction (Brassard et al., 2015; Greene & Faulkner, 2005; Lee, 2017; Widman et al., 2006), both among adults and among youth.

Differences in socio-sexual competences among youth with a different relationship status (i.e., partnered or single) have been assessed in a few studies. Findings from a study with Dutch university students showed that young men and women who were currently in a steady dating relationship reported less sexual insecurity (i.e., more *sexual esteem*) than those who were

single (Vanwesenbeeck et al., 1998). This study also revealed that relationship status (i.e., being in a steady dating relationship or being single) was not associated with the levels of pro-active or defensive *sexual control*, neither for young women nor for young men (Vanwesenbeeck et al., 1998). A study with British adolescents found that boys and girls who currently had a steady partner relationship, felt more able to – hypothetically, and without damaging the relationship – ask a (desired) partner sexuality-related *questions* (e.g., about condom use, STI testing, number of sexual partners, same-sex sexual experiences) than adolescents who did not currently have a steady partner (Taris & Semin, 1998). More recent research with American male and female university students found that more romantically active students (i.e., either currently or previously engaged in a serious and committed dating relationship) reported higher levels of *sexual esteem* (i.e., a higher evaluation of their sexual self and sense of being a good and competent sexual partner) than less romantically active students (Maas & Lefkowitz, 2015). Another study with American female undergraduate students showed that young women who were currently in a committed dating or sexual relationship reported lower levels of *body consciousness* (i.e., concern with their body's appearance) during sexual interactions, but not different levels of *body comfort* in intimate situations with a sexual partner (e.g., being naked in front of their sex partner), compared to young women who were currently not in a committed relationship (including women who were in a non-committed dating or sexual relationship, and those who were not interested in a relationship; Curtin et al., 2011). This study also indicated that young women who were currently in a committed dating or sexual relationship reported higher levels of *sexual assertiveness* (i.e., more frequent proactive disclosure and enactment of their sexual feelings and dislikes) than young women who were currently not in a committed relationship (Curtin et al., 2011).

Together, the aforementioned studies illustrate that self-reported socio-sexual competences differ across youth with different relationship status and experience (i.e., partnered versus single, more or less romantically active). Overall, it seems that youth in a committed romantic relationship and more romantically active youth report higher levels of socio-sexual competences (although the empirical evidence is not fully consistent across competences and studies). It has been argued, however, that the specific characteristics of the relationship wherein, and the partner with whom these socio-sexual competences are being utilized, form an important context for their successful development and execution (e.g., Vanwesenbeeck et al., 1999). Yet, up to now, potential differences in socio-sexual competences among youth with different types of sexual partnerships (e.g., romantic versus casual) have been rarely empirically examined. To our knowledge, when looking at the four socio-sexual competences under investigation in the present study, only one study has examined variations across youth's different types of sexual partnerships: In an Internet-based study with a predominantly (74%) female sample (18–67 years; mostly from North America and the UK), it was found that romantic partners more often *discussed* sex, sexual needs and desires, sexual boundaries, sexual monogamy, contraception, and STIs than friends-with-benefits partners, while no significant difference

was found in the discussion of condom use (Lehmiller et al., 2014). Yet, overall, the current body of research, and hence our knowledge on youth's socio-sexual competences in romantic versus casual relationships is still disappointingly scarce. The goal of the present study, therefore, was to compare socio-sexual competences (i.e., levels of sexual esteem, assertiveness, and control, and frequency of sexual communication) in young people's most recent sexual partners who were typed as either *romantic* (i.e., a current or former boy-/girlfriend) or *casual* (i.e., a sexual partner one did not have a romantic relationship with). Based on previously described empirical evidence, albeit limited in volume and consistency, the levels of youth's self-assessed socio-sexual competences were expected to be higher with romantic sexual partners than with casual sex partners.

Besides our main focus on examining whether these four socio-sexual competences differed across youth's romantic and casual sexual partnerships, we also tested additional relationship characteristics that may *explain* some of this variance in youth's self-reported socio-sexual competences with these different types of sexual partners. In the present study, three potential *confounders* in the association between sexual partnership type and socio-sexual competences were assessed, including being in love, the types of sexual behaviors engaged in, and the frequency of sexual activity. Confounding variables are defined as variables that correlate with both variables in the main association (i.e., sexual partnership type and socio-sexual competences), and as such statistically affect this main association in a way that leads to results that do not properly reflect this relationship (Pourhoseingholi et al., 2012). In other words: assessing these confounders provides a valuable opportunity to further explain any observed differences in youth's socio-sexual competences with romantic and casual sex partners. These confounder assessments had a largely exploratory nature, but we expected that all three relationship characteristics could correlate with both sexual partnership type and socio-sexual competences, and may as such statistically affect (e.g., reduce) the observed association between socio-sexual competence levels and sexual partnership type. These expectations were partially based on the literature showing that romantic relationships are characterized more by feelings of love (both passionate and companionate) than casual sexual relationships (Kansky, 2018); that in romantic partnerships youth engage in more types of sexual behaviors (i.e., light non-genital such as kissing, heavy non-genital such as petting, and genital such as intercourse) than in casual sexual partnerships (Furman & Shaffer, 2011); and that romantic partners report higher frequencies of sexual interactions and different types of sexual acts compared to casual sexual partners (Furman & Shaffer, 2011). In turn, such specific characteristics of the partnership have been argued to be linked to how successful young people are in developing and utilizing their socio-sexual competences (Vanwesenbeeck et al., 1999).

Additionally, we also explored age and gender patterns in the investigated socio-sexual competences with *romantic* and *casual* sex partners. From a developmental perspective, it can be reasoned that specific socio-sexual competences that are required to develop and maintain healthy, positive, and durable intimate relationships, are accumulated over time, through practice and experience (Collins, 2003; Connolly & McIsaac, 2009; Furman & Wehner, 1997). Empirical research

has indeed shown that, among American youth, self-perceived general communication awkwardness in dating relationships decreased across the transition from adolescence (12–17 years) to young adulthood (18–23 years), whereas perceived general dating confidence increased over time (Giordano et al., 2012). Another American study with adolescent romantic couples (14–21 years) that were dating for at least 4 weeks, showed no age differences in the levels of open sexual communication between partners (Widman et al., 2006). To date, no studies have empirically assessed whether young adults show more advanced socio-sexual competences than adolescents, whether these age differences would be similar for boys/men and girls/women, and whether they would be generalizable across different types of sexual partnerships.

Regarding gender patterns, from the perspectives of social constructionism (DeLamater & Hyde, 1998), observational learning (Bandura, 1971), and sexual script theory (Simon & Gagnon, 1986), the notion of sexual double standards implies that boys/men and girls/women experience different levels of social acceptance of their engagement in romantic versus casual sexual partnerships, and may attach different meanings to sexual interactions with romantic or casual partners (Bordini & Sperb, 2013; Lyons et al., 2011). Traditionally, boys/men are expected to be more “active” and girls/women more “passive” in sexual interactions, translating in expected (and empirically observed) overall higher and lower levels of sexual esteem, assertiveness, and control, respectively (Curtin et al., 2011; Lee, 2017; Maas & Lefkowitz, 2015; Oattes & Offman, 2007). Alternatively, in some (though not all) studies, girls/women tend to report more frequent communication with their sex partner about sexuality-related topics than boys/men (Oattes & Offman, 2007; Widman et al., 2014, 2006). Regarding potential differences in these socio-sexual competences across different sexual partnership types, it is proposed that female sexuality is more malleable in response to situational and sociocultural factors than male sexuality, a phenomenon referred to as *female erotic plasticity* (Baumeister, 2000). This would suggest that there would be more variation in female sexuality across the different contexts in which sexual interactions take place (e.g., romantic versus casual sexual partnerships) in comparison with male sexuality. In other words, based on this, we could expect to see larger differences in the socio-sexual competences of girls/women when comparing them across romantic versus casual sexual partnerships, while for boys/men the socio-sexual competences would be more similar across these sexual partnership types. However, because current empirical evidence for the directions of age and gender patterns is scarce and ambiguous, the analyses that were conducted to assess gender and age differences in the hypothesized disparities in socio-sexual competences in romantic versus casual sexual partnerships had a largely exploratory nature.

Method

Procedure

For the current study, existing data were used that were collected via online questionnaires in the cross-sectional

study “Sex under the age of 25,” which examined sexual behaviors and health of a large, national sample of 12-25-year-old youth ($N = 7,841$) in the Netherlands in 2011. Participants were recruited in two ways, depending on their age. Participants aged 12–16 years were recruited via randomly selected secondary schools, whereas participants aged 17–25 years were randomly selected from the Municipal Basic Administrations (MBA) of randomly selected municipalities. Participants recruited via secondary schools completed the questionnaire at school during a regular class period, while participants selected from the MBA received an invitation to participate from home, and completed the questionnaire there. The procedure of the “Sex under the age of 25” study – including recruitment, data collection, and ethics – was further described in detail by De Graaf et al. (2015). Informed consent was obtained from all individual participants included in the study. Specifically, for in-school youth, school boards provided *active informed consent* for participation of their students. In-school students and their parents provided *passive informed assent* and *consent*, respectively, where they were able to refuse voluntary participation. Out-of-school youth (≥ 17 years) provided *active informed consent*.

Participants

The purpose of the current study was to describe youth’s socio-sexual competences within their most recent sexual partnerships and to compare these characteristics across romantic and casual sex partners. Therefore, we included only participants who had reported about their most recent sexual partner and excluded participants who had not yet engaged in any interpersonal sexual behaviors ($n = 1,743$ cases excluded). Excluded youth were more often: adolescents ($\chi^2(1) = 1,451.10, p < .001$), from a non-Western background ($\chi^2(1) = 20.31, p < .001$), and highly educated ($\chi^2(1) = 32.18, p < .001$), but the excluded sample and retained analysis sample did not differ significantly in gender composition ($\chi^2(1) = 0.05, p = .426$). This resulted in a final analysis sample of $n = 6,098$ adolescents and young adults between 12.1 and 26.1 years old ($M = 20.0$ years, $SD = 2.9$). Sample characteristics are shown in Table 1.

Instruments

Most Recent Sexual Partner

Sexually active participants (i.e., those who had reported that they had engaged in one or more interpersonal sexual behaviors) self-reported on various relational and sexual characteristics (described below) of their *most recent sexual partnership*. To identify this partner, participants who reported having life-time experience with vaginal or anal intercourse were asked: “With whom did you, most recently, have vaginal/anal intercourse?” Participants who reported *not* having any life-time experience with intercourse were asked: “With whom have you, most recently, experienced touching/caressing, manual, or oral sex?” The answer categories included: 1 = *with my current boy-/girlfriend* ($n = 3,847, 63.1\%$), 2 = *with my ex-boy-/girlfriend* ($n = 915, 15.0\%$), 3 = *with someone I am/was not in a romantic relationship*

with ($n = 1,336, 21.9\%$).¹ For the current study, this variable was dichotomized into either a *romantic* sex partner (original categories 1 and 2, combining current and ex-boy-/girlfriends) or a *casual* sex partner (original category 3). In addition, we included the gender of the most recent sex partner (same-sex versus other-sex) in the analyses as a control variable.

Socio-Sexual Competences

To assess socio-sexual competences, a measure was constructed based on the *Sexual Interactional Behavior Scale* (De Graaf et al., 2010; Vanwesenbeeck et al., 1998). Participants indicated how often they felt or behaved in certain ways during sex with their most recent sexual partner on a five-point scale (1 = *never*, 5 = *always*). Items were phrased in current tense when participants reported about their current sexual partner, and in past tense when participants reported about a previous partner. Scores were analyzed using principle components factor analysis; this revealed four subscales: sexual esteem, sexual assertiveness, sexual control, and sexual communication (see Appendix A).

Sexual Esteem. The sexual esteem subscale included two items: “I feel/felt uncertain about my body while having sex,” and “I am/was afraid to do something wrong while having sex.” The item scores were reversed, so that higher mean scale scores indicated higher sexual esteem ($\alpha = .78$).

Sexual Assertiveness. The sexual assertiveness subscale included three items: “I make/made it very clear what I want(ed) in sex,” “I ask/asked the other person what he/she wants/wanted,” and “I feel/felt completely calm.” Higher mean scale scores indicated stronger sexual assertiveness ($\alpha = .73$).

Sexual Control. The sexual control subscale also included three items: “I have/had little influence on what happens during sex,” “I do/did things that I actually do not want,” and “I do/did things that the other person actually does not want.” The items were reversed so that higher mean scale scores indicated more sexual control ($\alpha = .64$).

Sexual Communication. The sexual communication subscale contained six items. Participants were asked: “What did you talk about with the last person you had sex with?”, and indicated this for the following topics: likes/desires, dislikes/boundaries, (preventing) pregnancy (contraception), condom use, own previous sexual experiences, partner’s previous sexual experiences (1 = *never*, 5 = *very often*). Higher mean scale scores indicated more frequent sexual communication ($\alpha = .86$).

Relationship Characteristics

To gain insight into what relevant relationship characteristics may explain the observed variance in youth’s self-reported socio-sexual competences with these different sexual partners (e.g., as

¹This included both same-sex and other-sex partners.

Table 1. Characteristics of analysis sample.

	Most recent sexual partner type		
	Total N (%)	Casual N (%)	Romantic N (%)
Total	6,098 (100%)	1,336 (21.9%)	4,762 (78.1%)
Gender			
Boys/men	2,512 (41.2%)	695 (27.7%)	1,817 (72.3%)
Girls/Women	3,586 (58.8%)	641 (17.9%)	2,945 (82.1%)
Age			
Adolescents (12.1–17.9 years)	1,675 (27.5%)	480 (28.7%)	1,195 (71.3%)
Young adults (18.0–26.1 years)	4,423 (72.5%)	856 (19.4%)	3,567 (80.6%)
Ethnic background			
Dutch or other Western	5,226 (85.7%)	1,102 (21.1%)	4,124 (78.9%)
Non-Western ^a	872 (14.3%)	234 (26.8%)	638 (73.2%)
Educational level ^b			
Low	2,997 (49.5%)	603 (20.1%)	2,394 (79.9%)
High	3,056 (50.5%)	720 (23.6%)	2,336 (76.4%)
Gender last partner			
Same-sex	138 (2.3%)	60 (4.5%)	78 (1.6%)
Other-sex	5,960 (97.7%)	1,276 (95.5%)	4,684 (98.4%)
Types of sexual behaviors ^c			
Touching/caressing	6,025 (98.8%)	1,311 (21.8%)	4,714 (78.2%)
Manual sex	5,341 (87.6%)	1,019 (19.1%)	4,322 (80.9%)
Oral sex	4,872 (79.9%)	871 (17.9%)	4,001 (82.1%)
Vaginal intercourse	4,796 (78.6%)	811 (16.9%)	3,985 (83.1%)
Anal intercourse	1,396 (22.9%)	241 (17.3%)	1,155 (82.7%)

^aNon-Western ethnic background = participant or at least one parent born in a non-Western country, e.g., Morocco/Turkey/Surinam/Dutch Antilles/other. ^bLow-level education included students who were currently enrolled in pre- or middle vocational education, or who had completed pre-university education at most. High-level education included students who were currently enrolled in general secondary or pre-university education, or who were currently enrolled in or had completed higher vocational education/university. ^cBecause of the way in which these data were collected, this represents both participants' lifetime experience with sexual behaviors and the sexual experiences engaged in with the last sexual partner.

confounders), we utilized available data on three additional characteristics of participants' most recent sexual partnerships.

Being in Love. Participants indicated the level of being in love with their most recent sexual partner (1 = *not in love*, 2 = *a little bit in love*, 3 = *very much in love*). For the analyses, this variable was dichotomized into *not in love* (original category 1) and *in love* (original categories 2 and 3, combining *a little bit* and *very much in love*).

Types of Sexual Behaviors. To take into account that our sample included participants with different types of sexual behavior experience with their most recent sexual partner, we included data on participants' experiences of various sexual behaviors with their most recent sexual partner. Participants were asked to indicate whether they had engaged in various types of non-coital and coital sexual behaviors with their most recent sexual partner (seven items), including touching/caressing, manual sex (male/female recipient), oral sex (male/female recipient), and vaginal/anal intercourse (0 = *no*, 1 = *yes*; see Table 1). For the analyses, the scores were summed to indicate the range (1–7)² of participants' experience with these different coital and non-coital sexual behaviors with their most recent sexual partner.

Frequency of Sexual Activity. In addition to the types of sexual behaviors they had engaged in, participants also reported the frequency of sexual activity with their most recent sexual partner (1 = *once*; 7 = *≥3x per week*). This

question was only presented to participants who reported about their most recent partner they had vaginal ($n = 4,796$; 78.6%) and/or anal ($n = 1,396$; 22.9%) intercourse with. This variable was analyzed as an interval variable.

Analyses

We used IBM SPSS Statistics, Version 24, to perform all statistical analyses. Missing value analysis indicated that, across variables, 0.2–21.2% of the scores of the analysis sample ($n = 6,098$) were missing. The sexual activity frequency variable had the highest percentage of missing values because participants who had no experience with vaginal and/or anal intercourse (i.e., those who had only experience with touching/caressing, manual, or oral sex) did not report on this. The questionnaire was programmed this way a-priori, with the purpose of shortening it. Not surprisingly, the results of Little's MCAR (Missing Completely At Random) Test revealed that MCAR could not be inferred ($\chi^2(19) = 3,063.06$, $p < .001$). Missing data were handled using Multiple Imputation (MI) across five datasets in SPSS, in order to avoid omitting data, and because it has been shown that this provides more accurate results than listwise deletion, even when data are not missing completely at random (Schafer & Graham, 2002).³

The analyses were performed in various steps. We first ran a series of descriptive analyses (Tables 1 and 2). We looked at overall frequencies of sexual partnership typologies (i.e.,

²The possible range of sum scores did not include zero, because only sexually active participants (i.e., those who had reported that they had engaged in one or more interpersonal sexual behaviors) were included in the present analysis sample.

³When running analyses in a multiple imputation dataset, SPSS yields pooled output for some analyses, but not all. For instance, in the pooled regression analysis output, only pooled B-values are given, not betas. Because B-values are dependent on the measurement scale, all variables were standardized before inclusion in the regression analyses, making comparisons between variable statistics possible.

romantic and *casual*) in our study sample. We subsequently assessed sociodemographic patterns in these sexual partner types using *Chi-Square Difference Tests*. Next, we examined the interlinkages between the model variables with *Bivariate Spearman's Rho Correlations*.

In the second set of analyses, we tested whether the three relationship characteristics (i.e., being in love, types of sexual behaviors, frequency of sexual activity) were confounders for the main relations of interest between the four socio-sexual competences and sexual partnership type (Tables 3 and 4). Hereto, three steps were performed. Firstly, we tested the associations between the three relationship characteristics and sexual partnership type in a series of logistic regression analyses. Secondly, we assessed the relations between these three potential confounders and the four socio-sexual competences, using T-tests and Bivariate Spearman's Rho Correlations. Thirdly, we assessed changes in the relations between the four socio-sexual competences and sexual partnership type, when adjusting the logistic regression analysis model for the three confounders one by one. The results of these analyses were used to achieve the most optimal logistic regression model.

The final logistic regression model included sociodemographics, relationship characteristics, and all four socio-sexual competences, as multivariate distinguishers between the two sexual partnership types (*romantic* versus *casual*). Moderation analyses were conducted to assess if the examined differences between sexual partnership types in socio-sexual competences varied significantly across ages or genders. To compensate for multiple comparisons and the large sample size, a more stringent threshold of $p \leq .010$ was used to indicate statistical significance.

Results

Descriptive Analyses

Sexual Partnership Typologies

As can be seen in Table 1, most youth (78.1%) indicated that their most recent sexual partner was a *romantic* partner (i.e., a current or ex-boy/girlfriend). In contrast, one-fifth (21.9%) of the sample indicated that they most recently had sex with a *casual* partner (i.e., someone they were not in a relationship with).

Table 2. Means and intercorrelations between the model variables.

	M				1.	2.	3.	4.	5.	6.	7.
	Boys/men	Girls/women	Adolescents	Young adults							
1. Age					-	.24***	.23***	.08***	.17***	.08***	.09***
2. Sexual behaviors					.38***	-	.45***	.02	.35***	.07***	.37***
3. Sexual frequency					.34***	.51***	-	.10***	.41***	.12***	.38***
4. Esteem	4.29***	3.86	3.97	4.07***	-.00	.05**	.10***	-	.18***	.25***	.02
5. Assertiveness	3.45	3.49	3.11	3.61***	.22***	.34***	.36***	.04	-	.24***	.50***
6. Control	4.62	4.75***	4.61	4.73***	.01	.00	.02	.23***	.05*	-	.08***
7. Communication	2.27	2.51***	2.20	2.49***	.21***	.41***	.43***	-.05*	.45***	-.04	-

On the left side of the table, mean scores are presented for the four socio-sexual competences, separately by gender and age. *** indicate significant differences between genders or age groups, and are placed at the highest mean score. On the right side of the table, presented statistics are pooled Spearman's Rho correlations for girls/women (above the diagonal) and boys/men (below the diagonal) across the five MI-datasets. *** $p < .001$ ** $p < .01$ * $p < .05$

Table 3. Pooled logistic regression analysis results from baseline model and final model, comparing socio-sexual competences within romantic and casual sexual partnerships (N = 6,098).

	Baseline Model					Final Fully Adjusted Model				
	B	S.E.	OR	95% CI	p	B	S.E.	OR	95% CI	p
<i>Sociodemographics</i>										
Gender ¹	0.38	0.07	1.46	[1.27, 1.67]	<.001	-0.01	0.09	0.99	[0.83, 1.17]	.872
Age	0.13	0.03	1.13	[1.06, 1.21]	<.001	0.01	0.04	1.01	[0.93, 1.10]	.786
Ethnicity ²	-0.25	0.09	0.78	[0.65, 0.93]	.006	0.09	0.11	1.09	[0.88, 1.36]	.439
Education ³	-0.20	0.07	0.82	[0.72, 0.93]	.003	-0.16	0.08	0.86	[0.73, 1.00]	.055
<i>Relationship characteristics</i>										
Partner gender	-1.00	.19	0.37	[0.25, 0.54]	<.001	-0.56	0.23	0.57	[0.36, 0.90]	.015
C1: Being in love ⁴						0.81	0.04	2.25	[2.10, 2.41]	<.001
C2: Types of sexual behaviors						0.01	0.05	1.01	[0.91, 1.12]	.856
C3: Frequency of sexual activity						0.74	0.07	2.10	[1.81, 2.44]	<.001
<i>Socio-sexual competences⁵</i>										
Esteem	0.04	0.04	1.05	[0.97, 1.12]	.227	0.05	0.04	1.05	[0.97, 1.14]	.233
Assertiveness	0.16	0.04	1.17	[1.09, 1.26]	<.001	-0.07	0.05	0.93	[0.85, 1.02]	.139
Control	0.13	0.03	1.14	[1.07, 1.22]	<.001	0.05	0.04	1.05	[0.97, 1.14]	.221
Communication	0.79	0.05	2.21	[2.02, 2.42]	<.001	0.45	0.05	1.56	[1.41, 1.73]	<.001
Model ⁶	$\chi^2(9)_{min.-max.} = 787.28-802.90$ $R^2_{Nagelkerke} = .19$					$\chi^2(12)_{min.-max.} = 2,018.77-2,078.09$ $R^2_{Nagelkerke(min.-max.)} = .44$				

B = unstandardized regression coefficient. S.E. = standard error. OR = odds ratio. CI = confidence interval. Reference category (0) = Casual sexual partnership. Bold p-values indicate statistical significance ($p \leq .010$). ¹1 = girls/women. ²1 = non-Western. ³1 = high. ⁴1 = yes. ⁵Scales: 1 = never; 5 = always/very often. ⁶As SPSS does not compute these pooled values for MI data, value ranges are reported for Model χ^2 and R^2 Nagelkerke, and median p-values are reported as advised by Eekhout et al. (2017). Presented statistics were from the models without interaction effects.

Table 4. Pooled logistic regression analysis results from confounder models (N = 6,098).

	Model 2A					Model 2B					Model 2C				
	B	S.E.	OR	95% CI	p	B	S.E.	OR	95% CI	p	B	S.E.	OR	95% CI	p
<i>Sociodemographics</i>															
Gender ¹	0.07	0.08	1.07	[0.91, 1.25]	.425	0.35	0.07	1.42	[1.24, 1.64]	<.001	0.21	0.08	1.23	[1.05, 1.44]	.009
Age	0.19	0.04	1.21	[1.12, 1.30]	<.001	0.05	0.04	1.05	[0.98, 1.13]	.147	-0.10	0.04	0.91	[0.83, 0.98]	.020
Ethnicity ²	0.03	0.11	1.03	[0.83, 1.27]	.813	-0.18	0.09	0.84	[0.70, 1.01]	.057	-0.11	0.10	0.89	[0.73, 1.09]	.272
Education ³	-0.21	0.08	0.82	[0.70, 0.95]	.008	-0.20	0.07	0.82	[0.72, 0.94]	.003	-0.14	0.08	0.87	[0.75, 1.00]	.055
<i>Relationship characteristics</i>															
Partner gender	-0.90	0.22	0.41	[0.26, 0.63]	<.001	-0.88	0.19	0.41	[0.28, 0.60]	<.001	-0.53	0.21	0.59	[0.39, 0.89]	.012
C1: Being in love ⁴	2.68	0.09	14.61	[12.21, 17.48]	<.001										
C2: Types of sexual behaviors						0.28	0.04	1.32	[1.22, 1.43]	<.001					
C3: Frequency of sexual activity											1.04	0.06	2.84	[2.52, 3.20]	<.001
<i>Socio-sexual competences⁵</i>															
Esteem	0.10	0.04	1.10	[1.02, 1.19]	.014	0.04	0.04	1.04	[0.97, 1.12]	.272	-0.02	0.04	0.98	[0.91, 1.06]	.599
Assertiveness	0.08	0.04	1.08	[1.00, 1.18]	.059	0.12	0.04	1.12	[1.04, 1.21]	.003	-0.06	0.04	0.94	[0.87, 1.03]	.172
Control	0.05	0.04	1.05	[0.97, 1.13]	.217	0.13	0.03	1.14	[1.06, 1.21]	<.001	0.11	0.04	1.12	[1.04, 1.20]	.003
Communication	0.62	0.05	1.85	[1.68, 2.04]	<.001	0.70	0.05	2.01	[1.83, 2.20]	<.001	0.51	0.05	1.67	[1.51, 1.85]	<.001
Model ⁶	$\chi^2(10)_{min.-max.} = 1,775.35-1,786.16$					$\chi^2(10)_{min.-max.} = 839.23-851.91$					$\chi^2(10)_{min.-max.} = 1,420.59-1,498.86$				
	$R^2_{Nagelkerke} = .39$					$R^2_{Nagelkerke} = .20$					$R^2_{Nagelkerke} = .33$				

B = unstandardized regression coefficient. S.E. = standard error. OR = odds ratio. CI = confidence interval. Reference category (0) = Casual sexual partnership. Bold *p*-values indicate statistical significance ($p \leq .010$). ¹1 = girls/women. ²1 = non-Western. ³1 = high. ⁴1 = yes. ⁵Scales: 1 = never; 5 = always/very often. ⁶As SPSS does not compute these pooled values for MI data, value ranges are reported for Model χ^2 and $R^2_{Nagelkerke}$ and median *p*-values are reported as advised by Eekhout et al. (2017). Presented statistics were from the models without interaction effects.

Sociodemographic Patterns in Sexual Partnership Types

First, girls/women (82.1%) reported having had a *romantic* most recent sex partner significantly more often than boys/men (72.3%), who were in turn more likely to report a *casual* recent sex partner (see Table 1; $\chi^2(1) = 82.79, p < .001$). Second, young adults (80.6%) reported having had a *romantic* recent sex partner significantly more often than adolescents (71.3%), who were in turn more likely to report a *casual* recent sex partner (see Table 1; $\chi^2(1) = 61.46, p < .001$). Results further showed that Dutch/Western youth (78.9%), and low-educated youth (79.9%) indicated significantly more often that their most recent sexual partner was a *romantic* partner, whereas non-Western youth (26.8%), and high-educated youth (23.6%) indicated significantly more often that their most recent sex partner was a *casual* partner (see Table 1; $\chi^2(1) = 14.43, 10.48$, respectively, $p's \leq .001$). Finally, other-sex partners were significantly more often labeled as romantic partners (98.4%), whereas same-sex partners were significantly more often (4.5%) labeled as casual partners (see Table 1; $\chi^2(1) = 38.40, p < .001$).

Inspection of the mean scores on the four socio-sexual competences showed that, overall, boys/men reported significantly higher levels of sexual esteem, but that girls/women reported significantly higher levels of sexual control and communication. No significant gender variation was observed in the levels of sexual assertiveness. Furthermore, young adults reported significantly higher levels of all four socio-sexual competences, compared to adolescents.

Together, these sociodemographic patterns indicated that, in addition to assessing gender and age differences, ethnicity, education level, and the gender of the most recent sex partner were relevant control variables to be included in the main analyses.

Bivariate Correlations between Model Variables

When examining the correlations (Table 2), two notable patterns emerged. First, age was significantly positively correlated

with two socio-sexual competences (i.e., assertiveness and communication) for boys/men and with all four competences for girls/women, indicating that, overall, older youth reported increasingly higher levels of these competences, except for esteem and control among boys/men. Second, the four socio-sexual competences were significantly interlinked, indicating that youth scoring high on one competence, also tended to score high on the others; but – at face value – gendered patterns were observed herein. For both boys/men and girls/women, the strongest correlation was observed between assertiveness and communication ($r_{boys} = .45; r_{girls} = .50$), and the second-strongest between esteem and control ($r_{boys} = .23; r_{girls} = .25$). In addition, significant small correlations were observed for girls/women between esteem and assertiveness ($r_{girls} = .18$), and between assertiveness and control ($r_{girls} = .24$). An additional significant correlation between control and communication for girls/women was observed, but this was very small ($r_{girls} = .08$). These significant interlinkages indicated the relevance of assessing all four socio-sexual competences simultaneously in one logistic regression analysis model, and the bivariate age and gender patterns emphasized the relevance of exploring moderation effects of age and gender.

Relationship Characteristics as Confounders

Firstly, the results of the logistic regression analyses that were conducted to test the associations between the three relationship characteristics and sexual partnership type (Table 4) showed that all three relationship characteristics were significantly related to sexual partnership type. Based on this step, we preliminarily concluded that all three relationship characteristics could potentially be confounders.

Secondly, results of T-tests and Bivariate Spearman's Rho Correlations were inspected to assess the relations between these three potential confounders and the four socio-sexual competences. T-test results showed that being in love was

significantly related to sexual assertiveness ($t_{pooled}(17,407) = -15.23, p < .001$), control ($t_{pooled}(14,900) = -8.01, p < .001$), and communication ($t_{pooled}(6,784) = -20.55, p < .001$), but not to esteem ($t_{pooled}(2,367) = 2.29, p = .022$). The correlations (Table 2) showed that the types of sexual behaviors engaged in were significantly related to sexual assertiveness and communication for both genders, to sexual esteem for boys/men, and to sexual control for girls/women. The frequency of sexual activity was significantly related to all four socio-sexual competences for girls/women, but not to sexual control for boys/men. Based on this step, we considered all three relationship characteristics as potential confounders.

Thirdly, changes in the relations between the four socio-sexual competences and sexual partnership types were assessed, by adjusting the logistic regression analysis model for the three confounders one by one. In the unadjusted baseline model (Table 3), assertiveness, control, and communication, but not esteem, differed significantly across sexual partnership type. Comparisons of the pooled logistic regression analysis results displayed in Tables 3 and 4 indicated that adjusting for being in love reduced the relations of assertiveness and control with sexual partnership type to non-significance, but not of communication (Model 2A; Table 4). Adjusting for the types of sexual behaviors engaged in did not reduce any of the relations between the four socio-sexual competences and sexual partnership type to non-significance (Model 2B; Table 4). Finally, adjusting for frequency of sexual activity reduced the relation between assertiveness and sexual partnership type to non-significance, but not of control, or communication (Model 2C; Table 4).

Based on these three steps, we concluded that being in love was a confounder of the relationships of assertiveness and control with sexual partnership type. This showed that the association between sexual partnership types (romantic versus casual) and youth's self-reported levels of assertiveness and control can be explained by observed differences in youth's levels of being in love. Frequency of sexual activity was an additional confounder of the relationship between assertiveness and sexual partnership type. This illustrated that the association between sexual partnership types (romantic versus casual) and youth's self-reported levels of assertiveness can be explained by observed differences in youth's reported frequencies of sexual behaviors. In other words: being in love and sexual activity frequency are important co-correlates of differences in the levels of assertiveness and control between romantic and casual sexual partnerships.

Final Model

When assessing the final fully adjusted logistic regression model (see Table 3), we found that being in love, frequency of sexual activity, and frequency of communication about sex were significant distinguishers between romantic versus casual sexual partnerships. Youth with romantic recent sex partners were significantly more often in love with that partner (OR = 2.25), had significantly more frequent sexual interactions with that partner (OR = 2.10), and communicated significantly more often about sexuality-related topics with that partner (OR = 1.56) than youth with casual

recent sex partners, even after controlling for sociodemographics and relationship characteristics. In the final model, no significant differences between romantic and casual sexual partnerships were found in terms of the types of sexual behaviors engaged in with that partner, or self-reported levels of sexual esteem, assertiveness, or control.

Moderation analyses showed no significant ($p \leq .010$) three-way (gender \times age \times competence) or two-way (gender \times competence) interaction effects. However, we did find one significant ($p \leq .010$) two-way age \times competence interaction effect for communication about sex ($B = 0.21, SE = .05, OR = 1.23, 95\% CI = [1.12; 1.36], p < .001$). Stratified logistic regression analyses showed that sexual communication was a significant relationship type distinguisher for both age groups, but this effect was significantly stronger for young adults ($B = 0.58, SE = .07, OR = 1.79, 95\% CI = [1.55; 2.07], p < .001$) than for adolescents ($B = 0.29, SE = .08, OR = 1.33, 95\% CI = [1.14; 1.55], p < .001$). Together, these statistics indicated that all youth (both adolescent boys and girls, and young adult men and women) with romantic recent sex partners communicated significantly more about sex with that partner than youth with casual recent sex partners, but for young adults, this difference in sexual communication across sexual relationship types was significantly larger than for adolescents.

Discussion

The goal of the present study was to investigate differences and similarities in youth's socio-sexual competences with different types of sexual partners. We specifically focused on differences between most recent sexual partners who were described by participants as either *romantic* (i.e., a current or ex-boy-/girlfriend) or *casual* (i.e., someone they were not in a romantic relationship with), we assessed relationship characteristics as potential confounders, and we explored differences across ages and genders, using data from a large sample ($n = 6,089$) of Dutch sexually experienced youth between 12 and 26 years. Most youth in our sample indicated that their most recent sexual partner was a *romantic* partner, whereas one-fifth indicated that their most recent sexual partner was a *casual* partner. This finding is consistent with previous studies showing that most youth typically have sex in the context of a romantic relationship (e.g., Collins et al., 2009; Lehmiller et al., 2014; Manning et al., 2005). In addition to this overall pattern, age and gender differences showed a clear demographic pattern.

First, young adults reported a romantic recent sex partner more often than adolescents did. This illustrates that the labeling and/or the actual character of sexual partnerships contains a developmental component, and also adds to previous argumentation that casual sex is a normative part of the developmental stage of young adulthood (Claxton & Van Dulmen, 2013). Compared to adolescence, where most youth begin with a normative exploring of intimate relationships and experiences (DeLamater & Friedrich, 2002; Tolman & McClelland, 2011), young adulthood is typically the stage where intimate relationships become longer in duration and more serious in content and importance (Furman & Winkles,

2011; Giordano et al., 2012; Madsen & Collins, 2011). Thus, while it is plausible that young adults have accumulated more *lifetime* casual sexual partners, they are also more likely to be engaged in a romantic sexual partnership at any given point in time, as their partnerships last longer (Giordano et al., 2012). This has important implications for the way in which we measure young people's relational and sexual histories.

Second, girls/women had more romantic most recent sex partners than boys/men. This is consistent with the notion of the sexual double standard (Bordini & Sperb, 2013; Lyons et al., 2011) and meta-analytic research showing that men are more likely than women to report engaging in casual sex, and to have more accepting attitudes toward casual sex (Petersen & Hyde, 2010). With our available data, we have no way of examining whether this observed gender discrepancy is related to sexual double standards being translated into different gendered perceptions of the characterization of these intimate relationships as romantic or casual, or self-report biases of sexual partnership types (Bordini & Sperb, 2013; Brener et al., 2003; Reid et al., 2011; Siegel et al., 1998), but these are relevant questions for future research.

When examining how the youth in our sample rated their socio-sexual competences, consistent with previous evidence (e.g., Curtin et al., 2011; Roberts Kennedy & Jenkins, 2011), the four socio-sexual competences were evidently interlinked ($r_s .08 - .50$, $ps < .001$), indicating that youth who scored high on one competence, also tended to score high on the others. For both genders, the strongest correlations were observed between assertiveness and communication ($r_s .45 - .50$), and between esteem and control ($r_s .23 - .25$). Yet, these still "moderate" intercorrelations (Cohen, 1992) also stress that it is important to consider them as different aspects of socio-sexual competency. This complex construct certainly requires more in-depth assessment, preferably with validated instruments that withstand possible measurement variance across youth's sociodemographic characteristics (e.g., gender, age, educational level, cultural background, sexual orientation; Vanwesenbeeck et al., 1998).

We identified being in love and sexual activity frequency as relevant confounding relationship characteristics in the association between sexual partnership type and socio-sexual competences. Specifically, we observed that when controlling for being in love, there were no more significant differences between *romantic* and *casual* sexual partnerships in the reported levels of assertiveness or control. In other words: initially observed variations in sexual assertiveness and control are better explained by being in love with a sexual partner than the labeling of the relationship context as romantic or casual. Similarly, after controlling for sexual activity frequency, there were no more significant differences in the levels of assertiveness between romantic and casual sexual partnerships. Here, it also appears that initially observed variations in sexual assertiveness are better explained by having sex more often with a sexual partner than the relationship context (i.e., romantic versus casual) in and of itself. This suggests a "practice-makes-better" notion, in line with previous literature (e.g., Furman & Wehner, 1997; Giordano et al., 2012; Shulman et al., 2011), and highlights the importance of assuming a developmental perspective also toward

understanding sexual behaviors and competences *within* individual partnerships.

Our results further revealed that the frequency of sexual communication differed significantly between romantic versus casual sexual partners. Youth who labeled their most recent sexual partnership as *romantic* reported more frequent communication about sexual topics with that partner than youth who labeled their most recent sex partnership as *casual*. This difference was observed after controlling for socio-demographic and relational characteristics (including the partner's gender), as well as the other socio-sexual competences. These findings are consistent with previous empirical studies showing that, among adolescents, having a steady (romantic) partner relationship was linked with feeling more able to discuss sexuality-related topics with a partner (Taris & Semin, 1998), and that, among adults, romantic partners more often discussed sexuality-related topics than friends-with-benefits partners (Lehmiller et al., 2014). Considering the importance of the explicit and open discussion between sexual partners about sexuality, *both* for sexual safety and health, *and* for relational and sexual satisfaction (Greene & Faulkner, 2005; Vanwesenbeeck et al., 1999; Widman et al., 2014, 2006) these are important findings for educational strategies.

The fact that we found no differences in sexual esteem, assertiveness, and control across the two sexual partnership types was unexpected. Despite the scarcity of literature on youth's socio-sexual competences in romantic versus casual relationships, based on prior indirect empirical evidence and the conceptual differences between romantic and casual sexual partnerships in terms of duration, the presence of romantic love, and the level of commitment (Collins et al., 2009; Kan & Cares, 2006; Lehmiller et al., 2014; Manning et al., 2005), we had expected that young people's self-assessed socio-sexual competences would be higher with romantic sexual partners than with casual sex partners. That this was not the case for sexual esteem, assertiveness, and control could indicate that these are largely individual-level characteristics that are fairly independent from the intimate partner context. Assessing these socio-sexual competences at different levels (e.g., within-individual across time, between-individual, within-dyad across relationships) could be an important topic for future research.

In addition to these notable main findings, we also examined possible gender and age differences in the linkages between sexual partnership types and socio-sexual competences. Initial inspection of the mean scores on the four socio-sexual competences showed that boys/men reported higher levels of sexual esteem, but girls/women reported higher levels of sexual control and communication (no differences were found in assertiveness). This partly confirms and partly questions the traditional roles ascribed to males and females in sexual interactions (i.e., active and passive; Curtin et al., 2011; Lee, 2017; Maas & Lefkowitz, 2015; Oattes & Offman, 2007). Yet, while girls/women showed higher mean levels of sexual communication, consistent with previous studies (Oattes & Offman, 2007; Widman et al., 2014, 2006), the aforementioned observed difference in sexual communication frequency with romantic versus casual sexual partners was in fact similar for girls/women and boys/men. Thus, despite the

expected gender differences in erotic plasticity (Baumeister, 2000), our findings show surprisingly similar patterns in the four self-reported socio-sexual competences of boys/men and girls/women across these two sexual partnership types. In sum, both boys/men and girls/women were “static” across sexual partnership types in their levels of sexual esteem, control, and assertiveness, and both were “plastic” across sexual partnership types in their levels of sexual communication, communicating about sexual topics more frequently with romantic sexual partners than with casual partners. Whether these observed gender similarities are a reflection of the increasingly similar meanings that both genders attach to sexual interactions with romantic or casual partners (e.g., Simon & Gagnon, 1986), progressively comparable social acceptance of both gender’s engagement in casual sexual partnerships (e.g., Bordini & Sperb, 2013), or an overall decrease of the sexual double standard, needs to be further investigated. In any case, it is important to note that the implications of our main finding about the partner context-related differences in sexual communication apply to boys/men as well as girls/women.

Young adults reported significantly higher levels of all four socio-sexual competences, compared to adolescents. Yet, despite the expected age differences, our findings revealed mostly similar patterns in the self-reported socio-sexual competences across the two sexual partnership types for adolescents and young adults. Both age groups did not differ across sexual partnership types in their levels of sexual esteem, control, and assertiveness; however, both age groups did differ across sexual partnership types in their levels of sexual communication, communicating about sexual topics more frequently with romantic sexual partners than with casual partners. Moreover, this observed difference in sexual communication frequency across sexual partnership types was larger for young adults than for adolescents. This may be explained by a developmental perspective at two different levels. At an *individual-level*, it may be assumed that within-person socio-sexual competences – and especially intimate partner communication skills – are accumulated over time, through practice, experience, and increasing confidence across partnerships (e.g., Giordano et al., 2012; Madsen & Collins, 2011). Previous empirical findings have illustrated that self-perceived general communication awkwardness in (romantic) dating relationships tends to decrease across the transition from adolescence to young adulthood (Giordano et al., 2012). At a *dyad-level*, it may be that increasing duration of a sexual partnership is associated with expanding levels of socio-sexual competences, due to amplifying knowledge, skill, intimacy, and comfort with that particular partner (Furman & Wehner, 1997; Giordano et al., 2012; Shulman et al., 2011). Unfortunately, the current data did not provide a useful measure of relationship duration, but assessing the link between relationship duration and youth’s socio-sexual competences is an important direction for future research. More generally, a better understanding of the developmental mechanisms underlying how young people construct their socio-sexual competences (i.e., the interplays between relationship characteristics, socio-sexual behaviors and competences, and *time*) requires more longitudinal research across

relevant developmental periods, from early adolescence until adulthood. Already, our current results indicate that discussing the potential challenges of sexual communication with different types of sexual partners (romantic *and* casual) with youth is important, and more so with increasing age.

Strengths and Limitations

The present study was the first to investigate socio-sexual competences within different types of young people’s intimate partnerships (i.e., romantic and casual), and to assess age and gender differences herein. It has also a few limitations that should be taken into account when interpreting the results.

While the use of data from a large, national Dutch sample (see De Graaf et al., 2015) strengthened the national generalizability of our results to sexually active youth in the Netherlands, our current analysis sample contained relatively few youth with a non-Western ethnic background, because they were not yet sexually active when they participated in the study. Also, the international generalizability of our findings to other countries needs to be established in future studies. Additionally, while we controlled for gender of the most recent sex partner in our analyses, no further analytic distinctions were made between same-sex and other-sex partners, due to the relatively small and highly skewed numbers of same-sex partners in our analysis sample. Previous research has shown more similarities than differences between ideal romantic relationship behaviors, sexual preferences and desires, communication, and satisfaction of same-sex versus other-sex-attracted adolescents and (young) adults (e.g., Choukas-Bradley et al., 2015; Holmberg & Blair, 2009). Yet, the partner context of (first) sexual relationships has been found to differ for same-sex and mixed-sex attracted youth (De Graaf & Picavet, 2017), and differences in safe-sex communication with regular versus casual partners have been observed among young men who have sex with men (Johns et al., 2018). Assessing sexual orientation variations (and similarities) in youth’s socio-sexual competences within different types of sexual partnerships is, therefore, a valuable direction for future research.

Other potential limitations lie in our available measures and operationalizations. First, the four socio-sexual competences were measured with two-, three-, and six-item instruments, respectively. Although measures with only a few items may not have optimal psychometric quality, their pragmatic use is common practice in large research surveys on adolescent sexual health and behavior, such as the *National Longitudinal Study on Adolescent Health* (Add Health; e.g., Ream & Savin-Williams, 2005) and the *National Longitudinal Survey of Youth* (NLSY; e.g., Coley et al., 2009) from the United States, and *Sex under the age of 25* (De Graaf et al., 2015) and *Project STARS* (Studies on Trajectories of Adolescent Relationships and Sexuality; Reitz et al., 2015) from the Netherlands. Studies that have investigated the use of single-item versus multiple-item measures for various constructs (e.g., self-reported attitudes, beliefs, perceptions, or health-related quality of life) have found that neither method appears to be empirically better than the other (Cunney & Perri, 1991; Gardner et al., 1998). Nonetheless, instruments

with only a few items may not fully grasp the complexity of sexual interaction processes, which could even be said for quantitative questionnaires more generally. An additional potential limitation is that we did not have information about the timeframe between the reported most recent sexual partner and the moment of data collection. Thus, we cannot estimate or control for any possible memory bias in the self-reported socio-sexual competences. Similarly, while it is not uncommon for adolescents and young adults to have sexual interactions with an ex-partner after the romantic relationship has ended (Halpern-Meehin et al., 2013), we could not infer from our data whether the participants who reported that their most recent sex partner was their ex-boy-/girlfriend (15% of our analysis sample) were in or out of a relationship with this ex-partner during the most recent sexual encounter(s), or whether the partner was an ex at the moment the questionnaire was completed. Including a more detailed timeline would certainly be important for future studies aimed at assessing young people's relational and sexual histories. In addition to validated multi-item instruments, observational and narrative research methods can further improve our in-depth understanding of the complex socio-psychological processes that underlie the mechanisms through which youth develop, perceive, and utilize their socio-sexual competences within different relationship contexts and with different partners across their relational and sexual histories (e.g., Connolly et al., 2015; Van de Bongardt et al., 2019; Welsh & Shulman, 2008).

Finally, due to the cross-sectional and *between-individual level* design of the present study, and the focus on only the most recent sexual partnership, we cannot know whether we have measured socio-sexual competences as individual or relationship traits. That is: to what extent are the self-reported socio-sexual competences as experienced with the most recent sexual partner a reflection of participants' own competences, and not reflections of the partner's competences, or their dyadic interactions? And to what extent are these individual competences consistent across different partnerships, or are they a product of that specific partnership, resulting from the interaction between the partner's and the individual's characteristics? In relation to our specific findings the question remains: Do youth generally communicate more about sex with their partner when they are in a romantic relationship (i.e., relationship context affects socio-sexual competence), or are youth who generally communicate more about sex with their sexual partners more likely to be in a romantic relationship (i.e., socio-sexual competence affects relationship context)? It has been theorized that (young) adults' sexual competence and risk should be understood as consistently intertwined with (1) factors from childhood and adolescence (e.g., SES, family climate, peer relations, sex education); (2) characteristics from the intermediate context (e.g., selection of partners, gender attitudes, socio-cultural norms); (3) characteristics from the immediate context (i.e., "the sexual arena"), including individuals' own interactional competences, those of their partner, and divisions of power and control; and (4) evaluations of the sexual interactions and their outcomes, which create a feedback loop to affect subsequent attitudes, intentions, and potential changes in

experienced and/or executed competence (Vanwesenbeeck et al., 1999). As such, socio-sexual competences are always to some extent the result of an interaction between individual, partner, relationship, and socio-contextual characteristics. As a result, they are likely to vary at the *within-individual level* not only across macro-developmental time (age) but also across different partners, and even within a single relationship (e.g., across days; Dewitte et al., 2015; Fortenberry et al., 2005). Indeed, it has been argued that, irrespective of age, sexual competencies are not something that individuals do or do not possess, all of the time. Rather, they may have or utilize these competencies in one sexual situation or relationship, but not in another (Hirst, 2008). It is thus crucial that future studies utilize repeated measures designs (e.g., diary studies) to examine socio-sexual competences as complex and dynamic traits, both at the individual and the relationship level, and also across different time levels (i.e., macro: months or years, meso: days, micro: minutes or seconds; see: Van de Bongardt, 2019).

Conclusion

Notwithstanding the continued need for more research on the characteristics, qualities, evaluations, and outcomes of the different types of young people's sexual partnerships (Eisenberg et al., 2009), our current findings already contribute to a better understanding of contemporary youth's intimate relationships, by showing important differences in socio-sexual competences within *romantic* versus *casual* partnerships. In sum, our findings suggest that most youth have sexual partners that they label as romantic (i.e., a current or ex-boy-/girlfriend), and that these romantic sexual partnerships are characterized by being more in love, having more frequent sex, and importantly, talking more about sexuality-related topics, in comparison with sexual partnerships that youth label as casual (i.e., someone they were not in a romantic relationship with). Although follow-up research is required to understand how these sexual partnership characteristics and socio-sexual competences are linked to sexual health (WHO, 2006), we may already translate the current findings to implications for relational and sexual health promotion strategies. A steadily growing body of literature stresses the importance of communication about sexuality between sexual partners, *both* for sexual safety and health, *and* for relational and sexual satisfaction (Byers, 2011; Widman et al., 2014, 2006). Hence, we propose that a better understanding of the interrelatedness between sexual partnership types, relational characteristics, and socio-sexual competences of youth will enable: (1) necessary attention for the relational contexts of youth's developing sexuality, and (2) acknowledgment of the fact that in order to achieve sexual health, youth's need to acquire socio-sexual competences that enable them to prevent risks but also to promote *positive qualities and beneficial outcomes* of their intimate relationships (Barber & Eccles, 2003; Hirst, 2008; McKee et al., 2010; Vanwesenbeeck et al., 1999). Although these competences are—at least in part—inherently dyadic or interactive, it seems important to equip individual youth with these competences, so that they can utilize them in their intimate relationships. Based on our findings, we propose that further exploring *why* there is plasticity in how often young people discuss sexuality-related topics with different types

of sexual partners, and what may be the consequences hereof for the safety and pleasure within those different partnerships, is an important first step.

Ethical approval

The Medical Ethical Research Committee of the University Medical Centre Utrecht confirmed that the Medical Research Involving Human Subjects Act (WMO) did not apply to the study “Sex under the age of 25” (reference number AvG/rc/10/05876). The study protocol therefore was exempt from formal medical-ethical approval under Dutch law. Thus, all procedures performed in this study were in accordance with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Acknowledgments

We would like to thank Suzanne Meijer, MSc (Programme Manager at Soa Aids Nederland, Amsterdam, the Netherlands) for her contribution to conceiving of the study (data collection), participating in the design and coordination of the study (data collection), performing the measurement (data collection), and providing feedback on the manuscript in its early stages. We would like to thank Dr. Joran Jongerling (Department of Psychology, Education, and Child Studies; Erasmus University Rotterdam) for the statistical advice for the analyses.

Funding

The data that were used in the current study were collected in “Sex under the age of 25”: A cross-sectional study on sexual behaviors and health of a national sample of 12-25-year-old youth in the Netherlands, which was funded by the Netherlands Organization for Health Research and Development (ZonMW) [Grant number: 124280002].

References

- Allen, L. (2005). “Say everything”: Exploring young people’s suggestions for improving sexuality education. *Sexuality Education*, 5(4), 389–404. <https://doi.org/10.1080/14681810500278493>
- Bandura, A. (1971). *Social learning theory*. General Learning Press.
- Barber, B., & Eccles, J. (2003). The joy of romance: Healthy adolescent relationships as an educational agenda. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 355–370). Lawrence Erlbaum and Associates.
- Baumeister, R. F. (2000). Gender differences in erotic plasticity: The female sex drive as socially flexible and responsive. *Psychological Bulletin*, 126(3), 347–374. <https://doi.org/10.1037/0033-2909.126.3.347>
- Boislard, M. A., Van de Bongardt, D., & Blais, M. (2016). Sexuality (and lack thereof) in adolescence and early adulthood: A review of the literature. *Behavioral Sciences*, 6(1), 8. <https://doi.org/10.3390/bs6010008>
- Bordini, G. S., & Sperb, T. M. (2013). Sexual double standard: A review of the literature between 2001 and 2010. *Sexuality & Culture*, 17(4), 686–704. <https://doi.org/10.1007/s12119-012-9163-0>
- Brassard, A., Dupuy, E., Bergeron, S., & Shaver, P. R. (2015). Attachment insecurities and women’s sexual function and satisfaction: The mediating roles of sexual self-esteem, sexual anxiety, and sexual assertiveness. *Journal of Sex Research*, 52(1), 110–119. <https://doi.org/10.1080/00224499.2013.838744>
- Brener, N. D., Billy, J. O., & Grady, W. R. (2003). Assessment of factors affecting the validity of self-reported health-risk behavior among adolescents: Evidence from the scientific literature. *Journal of Adolescent Health*, 33(6), 436–457. [https://doi.org/10.1016/S1054-139X\(03\)00052-1](https://doi.org/10.1016/S1054-139X(03)00052-1)
- Byers, E. S. (2011). Beyond the birds and the bees and was it good for you?: Thirty years of research on sexual communication. *Canadian Psychology*, 52(1), 20–28. <https://doi.org/10.1037/a0022048>
- Choukas-Bradley, S., Goldberg, S. K., Widman, L., Reese, B. M., & Halpern, C. T. (2015). Demographic and developmental differences in the content and sequence of adolescents’ ideal romantic relationship behaviors. *Journal of Adolescence*, 45, 112–126. <https://doi.org/10.1016/j.adolescence.2015.08.019>
- Claxton, S. E., & Van Dulmen, M. H. (2013). Casual sexual relationships and experiences in emerging adulthood. *Emerging Adulthood*, 1(2), 138–150. <https://doi.org/10.1177/2167696813487181>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Coley, R. L., Votruba-Drzal, E., & Schindler, H. S. (2009). Fathers’ and mothers’ parenting predicting and responding to adolescent sexual risk behaviors. *Child Development*, 80(3), 808–827. <https://doi.org/10.1111/j.1467-8624.2009.01299.x>
- Collins, W. A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, 13(1), 1–24. <https://doi.org/10.1111/1532-7795.1301001>
- Collins, W. A., Welsh, D. P., & Furman, W. (2009). Adolescent romantic relationships. *Annual Review of Psychology*, 60(1), 631–652. <https://doi.org/10.1146/annurev.psych.60.110707.163459>
- Connolly, J., Baird, K., Bravo, V., Lovald, B., Pepler, D., & Craig, W. (2015). Adolescents’ use of affiliative and aggressive strategies during conflict with romantic partners and best-friends. *European Journal of Developmental Psychology*, 12(5), 549–564. <https://doi.org/10.1080/17405629.2015.1066244>
- Connolly, J., & McIsaac, C. (2009). Adolescents’ explanations for romantic dissolutions: A developmental perspective. *Journal of Adolescence*, 32(5), 1209–1223. <https://doi.org/10.1016/j.adolescence.2009.01.006>
- Crouter, A. C., & Booth, A. (2006). *Romance and sex in adolescence and emerging adulthood: Risks and opportunities*. Lawrence Erlbaum Associates, Inc.
- Cunney, K. A., & Perri, III, M. (1991). Single-item vs multiple-item measures of health-related quality of life. *Psychological Reports*, 69(1), 127–130. <https://doi.org/10.2466/pr0.1991.69.1.127>
- Curtin, N., Ward, L. M., Merriwether, A., & Caruthers, A. (2011). Femininity ideology and sexual health in young women: A focus on sexual knowledge, embodiment, and agency. *International Journal of Sexual Health*, 23(1), 48–62. <https://doi.org/10.1080/19317611.2010.524694>
- De Graaf, H., & Picavet, C. (2017). Sexual trajectories of lesbian, gay, and bisexual adults in the Netherlands. *Archives of Sexual Behavior*, 47(4), 1209–1219. <https://doi.org/10.1007/s10508-017-0981-x>
- De Graaf, H., Van den Borne, M., Nikkelen, S., Twisk, D., & Meijer, S. (2017). *Seks onder je 25e. Seksuele gezondheid van jongeren in Nederland anno 2017 [Sex under the age of 25. Sexual health of Dutch youth in 2017]*. Uitgeverij Eburon.
- De Graaf, H., Vanwesenbeeck, I., & Meijer, S. (2015). Educational differences in adolescents’ sexual health: A pervasive phenomenon in a national Dutch sample. *Journal of Sex Research*, 52(7), 747–757. <https://doi.org/10.1080/00224499.2014.945111>
- De Graaf, H., Vanwesenbeeck, I., Woertman, L., Keijsers, L., Meijer, S., & Meeus, W. (2010). Parental support and knowledge and adolescents’ sexual health: Testing two mediational models in a national Dutch sample. *Journal of Youth and Adolescence*, 39(2), 189–198. <https://doi.org/10.1007/s10964-008-9387-3>
- DeLamater, J., & Friedrich, W. N. (2002). Human sexual development. *Journal of Sex Research*, 39(1), 10–14. <https://doi.org/10.1080/00224490209552113>
- DeLamater, J. D., & Hyde, J. S. (1998). Essentialism versus social constructionism in the study of human sexuality. *Journal of Sex Research*, 35(1), 10–18. <https://doi.org/10.1080/00224499809551913>
- Dewitte, M., Van Lankveld, J., Vandenberghe, S., & Loeys, T. (2015). Sex in its daily relational context. *The Journal of Sexual Medicine*, 12(12), 2436–2450. <https://doi.org/10.1111/jsm.13050>

- Eekhout, I., Van de Wiel, M. A., & Heymans, M. W. (2017). Methods for significance testing of categorical covariates in logistic regression models after multiple imputation: Power and applicability analysis. *BMC Medical Research Methodology*, 17(1), 1–12. <https://doi.org/10.1186/s12874-017-0404-7>
- Eisenberg, M. E., Ackard, D. M., 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. <https://doi.org/10.1363/4123109>
- Fortenberry, J. D., Temkit, M. H., Tu, W., Graham, C. A., Katz, B. P., & Orr, D. P. (2005). Daily mood, partner support, sexual interest, and sexual activity among adolescent women. *Health Psychology*, 24(3), 252–257. <https://doi.org/10.1037/0278-6133.24.3.252>
- Furman, W., & Winkles, J. K. (2011). Transformations in heterosexual romantic relationships across the transition into adulthood: “Meet Me at the bleachers ... I mean the bar”. In B. Laursen & W. A. Collins (Eds.), *Relationship pathways: From adolescence to young adulthood* (pp. 209–213). Sage.
- Furman, W., & Shaffer, L. (2011). Romantic partners, friends, friends with benefits, and casual acquaintances as sexual partners. *Journal of Sex Research*, 48(6), 554–564. <https://doi.org/10.1080/00224499.2010.535623>
- Furman, W., & Wehner, E. A. (1997). Adolescent romantic relationships: A developmental perspective. *New Directions for Child and Adolescent Development*, 78(78), 21–36. <https://doi.org/10.1002/cd.23219977804>
- Garcia, J. R., Reiber, C., Massey, S. G., & Merriweather, A. M. (2012). Sexual hookup culture: A review. *Review of General Psychology*, 16(2), 161–176. <https://doi.org/10.1037/a0027911>
- Gardner, D. G., Cummings, L. L., Dunham, R. B., & Pierce, J. L. (1998). Single-item versus multiple-item measurement scales: An empirical comparison. *Educational and Psychological Measurement*, 58(6), 898–915. <https://doi.org/10.1177/0013164498058006003>
- Giordano, P. C., Manning, W. D., Longmore, M. A., & Flanigan, C. M. (2012). Developmental shifts in the character of romantic and sexual relationships from adolescence to young adulthood. In A. Booth, S. Brown, N. Landale, W. Manning, & S. McHale (Eds.), *Early adulthood in a family context. National symposium on family issues* (Vol. 2, pp. 133–164). Springer.
- Greene, K., & Faulkner, S. L. (2005). Gender, belief in the sexual double standard, and sexual talk in heterosexual dating relationships. *Sex Roles*, 53(3–4), 239–251. <https://doi.org/10.1007/s11199-005-5682-6>
- Halpern-Meekin, S., Manning, W. D., Giordano, P. C., & Longmore, M. A. (2013). Relationship churning in emerging adulthood: On/off relationships and sex with an ex. *Journal of Adolescent Research*, 28(2), 166–188. <https://doi.org/10.1177/0743558412464524>
- Heinrichs, K. D., MacKnee, C., Auton-Cuff, F., & Domene, J. F. (2009). Factors affecting sexual-self esteem among young adult women in long-term heterosexual relationships. *The Canadian Journal of Human Sexuality*, 18(4), 183–199. <https://search.proquest.com/docview/220772908?pq-origsite=gscholar>
- Heldman, C., & Wade, L. (2010). Hook-up culture: Setting a new research agenda. *Sexuality Research and Social Policy*, 7(4), 323–333. <https://doi.org/10.1007/s13178-010-0024-z>
- Higgins, J. A., Mullinax, M., Trussell, J., Davidson, J. K., Sr, & Moore, N. B. (2011). Sexual satisfaction and sexual health among university students in the United States. *American Journal of Public Health*, 101(9), 1643–1654. <https://doi.org/10.2105/AJPH.2011.300154>
- Hirst, J. (2008). Developing sexual competence? Exploring strategies for the provision of effective sexualities and relationships education. *Sex Education*, 8(4), 399–413. <https://doi.org/10.1080/14681810802433929>
- Holmberg, D., & Blair, K. L. (2009). Sexual desire, communication, satisfaction, and preferences of men and women in same-sex versus mixed-sex relationships. *Journal of Sex Research*, 46(1), 57–66. <https://doi.org/10.1080/00224490802645294>
- Impett, E. A., Muise, A., & Peragine, D. (2014). Sexuality in the context of relationships. In D. L. Tolman & L. M. Diamond (Eds.), *APA handbook of sexuality and psychology* (pp. 269–315). American Psychological Association.
- Johns, M. M., Liddon, N., Jayne, P. E., Beltran, O., Steiner, R. J., & Morris, E. (2018). Systematic mapping of relationship-level protective factors and sexual health outcomes among sexual minority youth: The role of peers, parents, partners, and providers. *LGBT Health*, 5(1), 6–32. <https://doi.org/10.1089/lgbt.2017.0053>
- Kan, M. L., & Cares, A. C. (2006). From ‘friends with benefits’ to ‘going steady’: New directions in understanding romance and sex in adolescence and emerging adulthood. In A. C. Crouter & A. Booth (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 241–258). Lawrence Erlbaum Associates, Inc.
- Kansky, J. (2018). What’s love got to do with it? Romantic relationships and well-being. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. DEF Publishers.
- Lee, J. Y. (2017). Predictors of female college students’ relationship satisfaction: Attachment and sexual assertiveness. *Psychological Studies*, 62(1), 70–74. <https://doi.org/10.1007/s12646-017-0389-7>
- Lehmiller, J. J., VanderDrift, L. E., & Kelly, J. R. (2014). Sexual communication, satisfaction, and condom use behavior in friends with benefits and romantic partners. *Journal of Sex Research*, 51(1), 74–85. <https://doi.org/10.1080/00224499.2012.719167>
- Lyons, H., Giordano, P. C., Manning, W. D., & Longmore, M. A. (2011). Identity, peer relationships, and adolescent girls’ sexual behavior: An exploration of the contemporary double standard. *Journal of Sex Research*, 48(5), 437–449. <https://doi.org/10.1080/00224499.2010.506679>
- Maas, M. K., & Lefkowitz, E. S. (2015). Sexual esteem in emerging adulthood: Associations with sexual behavior, contraception use, and romantic relationships. *Journal of Sex Research*, 52(7), 795–806. <https://doi.org/10.1080/00224499.2014.945112>
- Madsen, S. D., & Collins, W. A. (2011). The salience of adolescent romantic experiences for romantic relationship qualities in young adulthood. *Journal of Research on Adolescence*, 21(4), 789–801. <https://doi.org/10.1111/j.1532-7795.2011.00737.x>
- Manning, W. D., Longmore, M. A., & Giordano, P. C. (2005). Adolescents’ involvement in non-romantic sexual activity. *Social Science Research*, 34(2), 384–407. <https://doi.org/10.1016/j.ssresearch.2004.03.001>
- McCarthy, B., & Grodsky, E. (2011). Sex and school: Adolescent sexual intercourse and education. *Social Problems*, 58(2), 213–234. <https://doi.org/10.1525/sp.2011.58.2.213>
- McKee, A., Albury, K., Dunne, M., Grieshaber, S., Hartley, J., Lumby, C., & Mathews, B. (2010). Healthy sexual development: A multidisciplinary framework for research. *International Journal of Sexual Health*, 22(1), 14–19. <https://doi.org/10.1080/19317610903393043>
- O’Sullivan, L. F., Cheng, M. M., Harris, K. M., & Brooks-Gunn, J. (2007). I wanna hold your hand: The progression of social, romantic and sexual events in adolescent relationships. *Perspectives on Sexual and Reproductive Health*, 39(2), 100–107. <https://doi.org/10.1363/3910007>
- Oattes, M. K., & Offman, A. (2007). Global self-esteem and sexual self-esteem as predictors of sexual communication in intimate relationships. *The Canadian Journal of Human Sexuality*, 16(3/4), 89–100. <https://search.proquest.com/docview/220809778?accountid=13598>
- Pedersen, W., & Blekesaune, M. (2003). Sexual satisfaction in young adulthood cohabitation, committed dating or unattached life? *Acta Sociologica*, 46(3), 179–193. <https://doi.org/10.1177/00016993030463001>
- Petersen, J. L., & Hyde, J. S. (2010). A meta-analytic review of research on gender differences in sexuality, 1993–2007. *Psychological Bulletin*, 136(1), 21–38. <https://doi.org/10.1037/a0017504>
- Pourhoseingholi, M. A., Baghestani, A. R., & Vahedi, M. (2012). How to control confounding effects by statistical analysis. *Gastroenterology and Hepatology from Bed to Bench*, 5(2), 79–83. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4017459/>
- Ream, G. L., & Savin-Williams, R. C. (2005). Reciprocal associations between adolescent sexual activity and quality of youth-parent interactions. *Journal of Family Psychology*, 19(2), 171–179. <https://doi.org/10.1037/0893-3200.19.2.171>

- Reid, J. A., Elliott, S., & Webber, G. R. (2011). Casual hookups to formal dates: Refining the boundaries of the sexual double standard. *Gender & Society, 25*(5), 545–568. <https://doi.org/10.1177/0891243211418642>
- Reitz, E., Van de Bongardt, D., Baams, L., Doornwaard, S. M., Dalenberg, W., Dubas, J. S., van Aken, M., Overbeek, G., Ter Bogt, T., van der Eijnden, R., Vanwesenbeeck, I., Kunnen, S., Timmerman, G., van Geert, P., & Deković, M. (2015). Project STARS (Studies on Trajectories of Adolescent Relationships and Sexuality): A longitudinal, multi-domain study on sexual development of Dutch adolescents. *European Journal of Developmental Psychology, 5*(5), 613–626. <https://doi.org/10.1080/17405629.2015.1018173>
- Roberts Kennedy, B., & Jenkins, C. C. (2011). Promoting African American women and sexual assertiveness in reducing HIV/AIDS: An analytical review of the research literature. *Journal of Cultural Diversity, 18*(4), 142–149. <https://www.ncbi.nlm.nih.gov/pubmed/22288212>
- Rodrigue, C., Blais, M., Lavoie, F., Adam, B. D., Magontier, C., & Goyer, M. F. (2015). The structure of casual sexual relationships and experiences among single adults aged 18–30 years old: A latent profile analysis. *The Canadian Journal of Human Sexuality, 24*(3), 215–227. <https://doi.org/10.3138/cjhs.243-A1>
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*(2), 147–177. <https://doi.org/10.1037/1082-989X.7.2.147>
- Shulman, S., Davila, J., & Shachar-Shapira, L. (2011). Assessing romantic competence among older adolescents. *Journal of Adolescence, 34*(3), 397–406. <https://doi.org/10.1016/j.adolescence.2010.08.002>
- Siegel, D. M., Aten, M. J., & Roghmann, K. J. (1998). Self-reported honesty among middle and high school students responding to a sexual behavior questionnaire. *Journal of Adolescent Health, 23*(1), 20–28. [https://doi.org/10.1016/S1054-139X\(97\)00274-7](https://doi.org/10.1016/S1054-139X(97)00274-7)
- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: Permanence and change. *Archives of Sexual Behavior, 15*(2), 97–120. <https://doi.org/10.1007/BF01542219>
- Soller, B. (2014). Caught in a bad romance: Adolescent romantic relationships and mental health. *Journal of Health and Social Behavior, 55*(1), 56–72. <https://doi.org/10.1177/0022146513520432>
- Taris, T. W., & Semin, G. R. (1998). How mothers' parenting styles affect their children's sexual efficacy and experience. *The Journal of Genetic Psychology, 159*(1), 68–81. <https://doi.org/10.1080/00221329809596135>
- Tolman, D. L., & McClelland, S. I. (2011). Normative sexuality development in adolescence: A decade in review, 2000–2009. *Journal of Research on Adolescence, 21*(1), 242–255. <https://doi.org/10.1111/j.1532-7795.2010.00726.x>
- Van de Bongardt, D. (2019). Youth's sexual relationships and development: Improving our understanding through a dynamic systems approach. In E. S. Kunnen, N. M. P. de Ruiter, B. F. Jeronimus, & M. A. E. van der Gaag (Eds.), *Psychosocial development in adolescence: Insights from the dynamic systems approach* (pp. 160–176). Routledge, Taylor & Francis.
- Van de Bongardt, D., Verbeek, M., & Rook, B. (2019). New interview method for sketching the dynamic relational and sexual history of young adults [Dutch title: Nieuwe interviewmethode voor het in kaart brengen van de dynamische relationele en seksuele geschiedenis van jongvolwassenen]. *Dutch Journal for Sexology, Special Issue: "Sex in Connection" [Tijdschrift Voor Seksuologie, Themanummer: "Seks in Verbinding"]*, 43(3), 129–143. <https://www.tijdschriftvoorseksuologie.nl/artikelen>
- Van de Bongardt, D., Yu, R., Deković, M., & Meeus, W. (2015). Romantic relationships and sexuality in adolescence and young adulthood: The role of parents, peers and partners. Editorial introduction to special issue. *European Journal of Developmental Psychology, 12*(5), 497–515. <https://doi.org/10.1080/17405629.2015.1068689>
- Vanwesenbeeck, I., Bekker, M., & Van Lenning, A. (1998). Gender attitudes, sexual meanings, and interactional patterns in heterosexual encounters among college students in the Netherlands. *Journal of Sex Research, 35*(4), 317–327. <https://doi.org/10.1080/00224499809551949>
- Vanwesenbeeck, I., Van Zessen, G., Ingham, R., Jaramazović, E., & Stevens, D. (1999). Factors and processes in heterosexual competence and risk: An integrated review of the evidence. *Psychology and Health, 14*(1), 25–50. <https://doi.org/10.1080/08870449908407312>
- Welsh, D. P., & Shulman, S. (2008). Directly observed interaction within adolescent romantic relationships: What have we learned? *Journal of Adolescence, 31*(6), 877–891. <https://doi.org/10.1016/j.adolescence.2008.10.001>
- Wesche, R., Claxton, S. E., Lefkowitz, E. S., & Van Dulmen, M. H. (2017). Evaluations and future plans after casual sexual experiences: Differences across partner type. *Journal of Sex Research, 55*(9), 1180–1191. <https://doi.org/10.1080/00224499.2017.1298714>
- Widman, L., Choukas-Bradley, S., Helms, S. W., Golin, C. E., & Prinstein, M. J. (2014). Sexual communication between early adolescents and their dating partners, parents, and best friends. *Journal of Sex Research, 51*(7), 731–741. <https://doi.org/10.1080/00224499.2013.843148>
- Widman, L., Welsh, D. P., McNulty, J. K., & Little, K. C. (2006). Sexual communication and contraceptive use in adolescent dating couples. *Journal of Adolescent Health, 39*(6), 893–899. <https://doi.org/10.1016/j.jadohealth.2006.06.003>
- World Health Organization. (2006). *Defining sexual health*. Report of a technical consultation on sexual health 28–31 January 2002. http://www.who.int/reproductivehealth/topics/gender_rights/defining_sexual_health.pdf

Appendix A. Psychometric properties of the socio-sexual competences measure

	Rotated Components ^a			Corrected item-total correlation
	1	2	3	
Sexual Assertiveness				
1. I make/made it very clear what I want(ed) in sex	.87	.02	.07	.66
2. I ask/asked the other person what he/she wants/wanted	.80	-.03	-.07	.52
3. I feel/felt completely calm	.74	.09	.13	.49
Sexual Control				
4. I do/did things that I actually do not want (r)	.07	.80	.18	.50
5. I do/did things that the other person actually does not want (r)	-.07	.77	.13	.44
6. I have/had little influence on what happens during sex (r)	.07	.72	.02	.40
Sexual Esteem				
7. I feel/felt uncertain about my body while having sex (r)	.02	.12	.89	.63
8. I am/was afraid to do something wrong while having sex (r)	.10	.16	.88	.63

^aExtraction method: Principle components factor analysis.