

# Bringing Sex Back In: Sexual Expression and Relationship Happiness In Married, Cohabiting and Living Apart Together Partnerships In Britain

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## **Abstract**

Prior studies have found that sexual activity relates to relationship happiness and stability, but little research has examined the role of partnership type in sexual expression. This paper brings together the demographic and sexuality literature regarding the changing nature of intimate partnerships, and investigates how emotional connection, compatibility between partners in terms of their sexual interest and sexual preferences, and relationship happiness compare across three types of partnership: living apart together, cohabitation and marriage. Regression models of data from the British National Study of Sexual Attitudes and Lifestyles suggest that for both men and women compatibility in sexual interest and relationship happiness differ by partnership status: those living apart together report more similar sexual interest as their partners than married individuals, but are less happy in their relationship. Cohabiting men and women are similar to married individuals in their sexual expression, but report lower levels of relationship happiness.

## Introduction

It is generally acknowledged that sex strengthens the bonds of relationships (Schwartz et al., 2013) and prior research shows that various dimensions of sexual expression, such as sexual frequency, sexual satisfaction and sexual desire are related to relationship satisfaction and stability (Sprecher & Cate, 2004; Yabiku & Gager, 2009; Yeh et al., 2006). At the same time, sexual activity can be a central area of spousal concern and conflict (Elliott & Umberson, 2008). Sexual relations are ranked as the second most problematic issue (after balancing job and family) for young married American couples (Risch et al., 2003). In the UK, qualitative research indicate that sexual intercourse and pleasure are neither enough, nor central for a fulfilling sex life (Mitchell et al., 2011a). Emotional connection with partner, compatibility between partners in terms of their sexual interest and sexual preferences are commonly viewed as being central to a good sexual relationship. In this paper, we refer at these concepts as sexual expression<sup>1</sup> in partnerships. The inclusion of these three items in the 2010-2012 British National Survey of Sexual Attitudes and Lifestyles, one of the largest scientific study of sexual behaviour in the world, allows us to examine the relationship between sexual expression and partnership type within a national probability sample.

Hitherto, most research on sexual expression in partnerships have been conducted on relatively small scale samples, often statistically unrepresentative, undertaken within the sexual health and psychological literature. The vast majority of these studies has focused on married individuals or have contrasted those with a partner to those without. However, the past decades have witnessed profound changes in partnership behaviour, which are

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<sup>1</sup> Sexual expression is a broad concept used in the sex literature to denote sexual desire (DeLamater & Sill, 2005), but also other aspects of sexual behaviour such as sexual frequency, sexual satisfaction, masturbation (DeLamater, 2012); some scholars use the terms “sexuality” and “sexual expression” interchangeably to refer at sexual frequency and sexual satisfaction (DeLamater et al., 2008) or at sexual functioning (DeLamater, 2012); even if “sexual expression” can denote other sexual related items, in this paper we use the term to refer to emotional connection with partner when having sex, compatibility between partners in sexual interest and in sexual preferences

exemplified by later marriages, higher cohabitation rates, and new ways of expressing intimacy outside of co-residence, such as in “Living Apart Together” relationships (LAT) (Lesthaeghe, 2010; Perelli-Harris, 2015; Stoilova et al., 2014). Nonetheless, few studies compare sexual matters across marital, cohabiting and living apartunions, especially in contexts other than the US. Since the definitions of “commitment” and “partnerships” are continuously changing and being redefined by both researchers and couples themselves (Berrington et al., 2015; Perelli-Harris et al., 2014), and given the importance of sexuality<sup>2</sup> beyond its scope of reproductive function (WHO, 2006), there is a gap and need for understanding how sexual expression differs across type of intimate partnerships. Moreover, it has been suggested that cohabitation and marriage differ in relationship quality (Wiik et al., 2012), relationship happiness (Brown & Kawamura, 2010), and sexuality (Blumstein & Schwartz, 1983; Laumann et al., 2006), but results are mixed and some of the studies might not have taken into consideration the selection effects. Therefore, it is important to understand if partnerships in general, and marriage in particular, structure not only individual’s sexual expression and intimacy, but also their relationship happiness.

In this paper, we focus on whether partnership type is associated with emotional connection with partner, compatibility between partners in terms of their sexual interest and sexual preferences, and relationship happiness in Britain, where family demographers have paid little attention to the link between union dynamics and intimacy. This is surprising since the “plastic sexuality”, as expression of intimacy, and as manifestation of sexual pleasure lay at the basis of maintaining relationships (Giddens, 1992), and “serial monogamy” seems the dominant form of sexual partnering in all Western societies (Weeks, 2009). The diversity of

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<sup>2</sup> We define sexuality in relationships according to DeLamater and Hyde (2004, p. 8) as a broad concept referring not only to sexual intercourse. sexual orientation or sexual identity, but also at everything in between related to the experience of sex and physical intimacy such as prolonged eye contact, holding hands, kissing, and emotions. Psychological factors as sexual inhibition due to past experience or sociocultural factors as access to information about sexuality, communication about sex with parents or the impact of work obligations on sex life are part of the broad concept of sexuality

practising intimacy outside of “traditional” marriage which the UK has witnessed - reflected in the rise of cohabitation and in the increased attention from scholars to study the nature of LAT relationships - highlights the importance to study the differences in sexual expression between partnership types. In the UK, the number of cohabiting couples (with or without dependent children) grew by 29.7% between 2004 and 2014 (ONS, 2015). At the same time, recent estimates suggest that “single” Britons express their intimacy beyond co-residence, in living apart together relationships (roughly 10% of adults, Duncan & Phillips, 2010). However, there is limited literature on comparing sexual matters and relationship happiness across marital, cohabiting and living apart unions.

In this article, we include an age range from 16 to 74 years old, providing a picture of sexual expression in different partnership types across the life course. Thus, we fill the gap noted by sociologists who have indicated the lack of comparative studies on sexual expression with other age groups (Das et al., 2012, p. 236). We also ask whether early sexual life experiences mediate the association between partnership type and sexual expression, contributing to the growing body of research investigating these links. Early sexual experiences were shown to be associated with present sexual behaviour (Browning & Laumann, 1997) or marital happiness (Rhoades & Stanley, 2014) and all these observations are interpreted as part of the life course theory. Therefore, this study not only provides understanding on how partnerships differ with respect to sexual expression, but it also contributes to the discussion about the role of past sexual behaviours on present partnered sexual expression.

## **Theoretical Framework**

### *The changing nature of partnerships*

Numerous studies across countries have found differences between cohabitation and marriage. In the US, Nock (1995) conducted the first national study on relationship happiness between cohabiting and married individuals underlying the low levels of relationship happiness cohabiters tend to report. Nock compares cohabitation with remarriage describing the first as an incomplete institution (Cherlin, 1978), explaining that the norms and roles for those cohabiting are unclear and less specific than those surrounding marriage, which may trigger relationship disharmony. More recent studies continue to underline the differences between marriage and cohabitation with respect to relationship happiness (Brown & Kawamura, 2010; Lee & Ono, 2012), the level of commitment (Wiik, et al., 2009), and relationship stability (Bumpass et al. 1991). However, these differences are mainly explained by the selection mechanisms. For example, cohabiters with plans to marry have similar levels of commitment to those already married (Wiik et al., 2009). Nonetheless, cohabiting couples also report higher levels of conflict than do marrieds, lower levels of subjective well-being and higher levels of individualism (Dush & Amato, 2005; Rhoades et al., 2006, Teachman, 2003).

On a socio-psychological level, Levinger (1979) explains that cohabiting couples might have lower levels of interdependence compared to married ones, and that they occupy a different location on “the continuum of relatedness”. This might point towards a lower level of commitment, dependence and relationship happiness that cohabiting couples have compared to those married (Brown & Kawamura, 2010; Wiik et al., 2009). However, some studies underline the changing meaning of cohabitation as it becomes more widespread (Perelli-Harris et al., 2014). In the UK, qualitative evidence shows that the relationship

between commitment, cohabitation, and marriage has changed over time so that cohabitation mirrors a higher level of commitment than previously (Berrington et al., 2015; Duncan et al., 2005; Jamieson et al., 2002). A recent British qualitative study finds that the meaning of personal commitment is similar between marriage and cohabitation (Berrington et al, 2015). Furthermore, the UK has one of the highest levels of marriages which starts with premarital cohabitation, long duration of cohabiting unions, and higher prevalence as a setting for child-rearing, indicating a de-standardisation of family formation, cohabitation becoming the norm of starting intimate partnerships (Beaujouan & Ní Bhrolcháin, 2011). The “happiness gap” between married and cohabiting individuals is also smaller when cohabitation is more prevalent and accepted (Pirani & Vignoli, 2016; Soons & Kalmijn, 2009). New research on partnership type differences in subjective well-being for UK, Australia, Germany and Norway shows that subjective well-being does not necessarily differ by partnership type. However, this is not the case for the UK, where both married men and women have higher subjective well-being as compared to cohabiters (Hoherz et al., 2017). Within the context of this paradigm (more prevalent and accepted cohabitation, but still characterised as a less happy union than marriage), it is not clear how sexual expression dimensions such as emotional connection with partner during sex, compatibility between partners in sexual interest and compatibility in sexual preferences might differ between cohabitation and marriage in the UK.

Lately, demographers have started to examine LAT couples and to compare them with married and cohabitating couples to assess relationship happiness differences (Tai et al., 2014), and have reinforced the idea that married people are the happiest. British LAT are characterised by sociologists in terms of “flexible pragmatism” (Simon Duncan & Phillips, 2010). The term suggests the partners’ flexibility to adapt their needs and desires around personal autonomy, couple intimacy and other family commitments. A mixed methods study

in Britain claims that most LATs perceive themselves in terms of monogamous, committed relationship, where marriage remains a strong ideal, and see their partnership as not different from cohabitation with respect to separation risk, emotional security or closeness (Duncan et al., 2014). However, the same study presents LAT individuals disagreeing with the statement that their relationship made them feel “more emotionally safe and secure”. Duncan and Phillips (2010) use nationally representative British data to underline that LAT is an uncertain and ambiguous practice most often encountered in young adults who think it is too soon for them to live together. However, LATs are also encountered among people in mid-life for whom the relationship is a temporary living arrangement, people who finished a cohabiting or married relationship, and people for whom the LAT partner is part of a more complex relationship history, which included serial cohabitation or married relationships, and a number of other sexual relationships. Other findings, based on a non-representative sample, analyse British LATs as a feature of the individualisation theory which resonates with Giddens’s (1992) notion of “pure relationship” and Bauman’s (2003) metaphor of liquid love (Roseneil, 2006). Alternatively, other studies oppose the thesis of individualisation in the UK arguing that people who live apart are cautious and conservative, with LATs being just a stage on the route from singledom to cohabitation and marriage (Haskey, 2005; Haskey & Lewis, 2006). Coulter and Hu (2015) identified in the UK four sizeable and well-defined groups that closely resemble the clusters derived from French and Australian data by Régnier-Loilier et al. (2009) and Reimondos (2011), stressing that LAT is practiced at similar junctures of the life course across Western countries.

However, despite the differences these partnership types trigger for levels of commitment and relationship happiness, the foundation of couple relationships is a desire for sexual and emotional intimacy (Sassler, 2010), which acts as a convergence for all partnership types. It is thus surprising how infrequently family demographers have examined

sexual behaviour, since all these three partnership types lay at the basis of family formation and change in Europe.

Drawing from the literature on partnership differences led us to formulate the following research questions:

1. How does sexual expression and relationship happiness differ for married, cohabiting and living apart together couples?
2. To what extent are these differences mediated by health, respondents' past sexual and cohabiting behaviour, and education?

### *Sex In Different Partnerships*

Sexuality is one of the defining dimensions of an ongoing relationship. Most couples remain sexually active at older ages and assess sexual activities as important components of their relationships (Gott & Hinchliff, 2003). The scarce literature which investigates the link between partnership type and sexuality mostly examines sexual satisfaction (Blumstein & Schwartz, 1983), sexual frequency (Call et al., 1995; Yabiku & Gager, 2009), and more recently sexual well-being (Laumann et al., 2006), but results are mixed. For example, findings from the National Health and Social Life Study, based on a US nationally representative sample, highlight that sexual frequency is higher among cohabiters than among married couples (Call et al., 1995; Laumann et al., 1994). The results are consistent with earlier data collected in a national (but nonprobability) sample by Blumstein and Schwartz (1983), who characterised cohabitation as a “sexier” living arrangement than marriage. However, this might be because cohabitation was often a premarital, not a long-term, arrangement. This may have changed as cohabiting unions have become longer, and more frequently include childbearing.

Laumann et al. (1994) show that even if cohabiters have more frequent sex than marrieds, they are less likely to be satisfied with their sex lives. Waite and Joyner (2001) did



a follow up study using the same US National Health and Social Life Study and illustrate a more complex picture. The authors argue that psychological commitment matters more than the type of partnership in evaluating emotional and sexual satisfaction. For example, dating men, who assessed their relationship will not last, reported lower levels of emotional and physical satisfaction with sex as compared to their marrieds and cohabiting counterparts. Interestingly, emotional satisfaction with sex was reported in a higher level among married compared to cohabiting women and among dating women who assess their relationship as enduring. Married and cohabiting women reported the highest levels of sexual satisfaction. A recent cross-comparative research in 29 countries supports contrasting findings: cohabiters and living apart couples report higher levels of sexual well-being than marrieds (Laumann et al., 2006). The differences in partnerships are significant net of other covariates.

Yabiku and Gagner (2009), using a US national representative sample, found that low sexual frequency is associated with significantly higher rates of union dissolution among cohabiters than married couples. This might point towards the gratification and extrinsic rewards cohabiting individuals might rely more on as compared to the married ones, an argument in line with the authors and with the body of research presenting cohabitation as a less committed union compared to marriage (Bumpass et al., 1991; Bumpass & Lu, 2000).

Kontula and Haavio-Mannila (2009) have used a Finnish national representative sample and suggest that for midlife and older women, being in a LAT relationship is associated with high sexual desire. It might be that these women enjoy the freedom and personal space LAT offers, keeping thus up their sexual desire. Social scientists have noted that sexual frequency decreases the most during the first year of marriage, the phenomenon being typically referred as “the honeymoon effect” (Call et al., 1995). Habituation might explain also why the Finnish LAT women are more likely to express higher levels of sexual

desire than their married and cohabiting counterparts. The differences between partnership type are significant in the presence of age or duration of relationship.

Sexual expression dimensions such as sexual desire, sexual interest, sexual arousal have also been studied in the British context, but through the lens of sexual (dis)function. Mitchell et al. (2011a) used an innovative methodology, the sexual scripting approach, bringing to the stage the importance of the relational and erotic context of individuals' sexual life. The relational script focuses on relational aspects of sexual intercourses and valued emotional intimacy and security, and the erotic script focuses on pleasure, novelty and excitement. Among the items most valued by the participants, emotional connection with partner during sex, compatibility between partners in terms of their sexual interest and sexual preferences were defined as contributing to a "fulfilling" sexual life. Later on, these items have been incorporated by Mitchell et al. (2011b) and Mitchell and Wellings (2012) in the overall measure of sexual function, with the authors expanding its meaning from the biomedical perspective to the relational perspective. This paper looks precisely at these dimensions of partnered sexual expression to see if and how they differ across union type.

#### *Age and relationship duration*

If we are to compare sexual expression across partnership type it is important to control for both age of respondents and the duration of their relationship since previous studies have shown that these covariates are important factors affecting sexuality. Consistent findings across numerous studies suggest that age is associated with decreased sexual frequencies, with lower rates for women (Laumann et al., 1994; DeLamater & Moorman, 2007; Fisher, 2009; Kontula & Haavio-Mannila, 2009; Waite & Das, 2010). However, while age is associated with a decrease in vaginal and oral sex, it is not associated with other types of physical intimacy such as frequency of kissing, touching, hugging or caressing (AARP, 2005). Other factors associated with low sexual frequency include biological aspects of the

aging process, among which worth mentioning is women transition through menopause, which can make the sexual act uncomfortable or painful. For some women, the onset of menopause is associated with low sexual desire and sexual satisfaction, which may be negatively associated with relationship and sexual well-being (Dennerstein et al., 2006; Fisher, 2009; Kontula & Haavio-Mannila, 2009). The social construction of sexual activity at older ages might be important for women: Laumann et al. (2005) explain that, for women, a lack of sexual interest is related to beliefs that aging means being asexual. For men, erectile problems are reported among the biological aspects negatively associated with enjoyment of sexual life (Fisher, 2009). Some research emphasises the stronger negative relationship between age and sexual desire for men (DeLamater & Sill, 2005), or the existence of the relationship only for men (Laumann et al., 2005).

Some research have documented that relationship duration is not related to sexual satisfaction (Sprecher & Cate, 2004; Ventegodt, 1998), but recent research shows different findings: sexual satisfaction grows in the first year of a relationship, followed by a decline. The pattern persisted in the presence of other covariates, such as partnership type (cohabitation and marriage) (Schmiedeberg & Schröder, 2016). A recent study which targeted men and women aged 40-70 in Brazil, Germany, Spain and the United States reveals that men reported higher levels of sexual satisfaction and relationship happiness with each increasing category of relationship length (Heiman et al., 2011). For women, the picture is much more complex. Heiman et al. shows that as compared with their partners, women expressed less sexual satisfaction in shorter relationships than 10 years, and in longer relationships than 20 years. Other studies suggest that relationship duration is not associated with sexual frequency or sexual desire when controlling for a number of factors (Kontula & Haavio-Mannila, 2009). Various studies have also found that marital quality declines over the life course (Umberson et al., 2006; Williams & Dunne-Bryant, 2006), which highlights the

need to control for relationship duration for both sexual expression and relationship happiness.

### *Gender*

Women have been described in terms of sexual gate-keepers (Peplau, Rubin, & Hill, 1977), of high erotic plasticity (Baumeister, 2000) or of sexual fluidity (Diamond, 2008), which indicates the distinction of women's sexuality from that of men's. In summary, the literature states that women are less permissive in their sexual attitudes and behaviours compared to men, although these differences have become narrower for younger cohorts (Petersen & Hyde, 2010; Treger et al., 2013). Social learning and socialization theorists argue that gatekeeping emerges from learned gender roles, in which men are expected to initiate sex and women are socialized to limit sex (Peplau et al., 1977). The socialization framework explains that women take a less active role in relationship initiation (e.g., being asked on a date by men) or possess less permissive sexual attitudes (e.g. they are less likely to approve sex at first date), because society or culture supports and reinforces such attitudes and behaviours. These behaviours are further embedded within various scripts women and men use to act in socially and sexually appropriate ways (e.g., men paying for dates, men initiating the sexual act). Guided by the literature on gender differences in sexuality, we conduct our analysis separate for women and men.

### *Health*

Physical health and disease affect a person's capacity for sexual expression and marital quality (Galinsky & Waite, 2014). Poor health has been found to be negatively associated with sexual desire (Kontula & Haavio-Mannila, 2009). Labuski (2011) found that pain during one sexual intercourse causes a person to be so tense during a second interaction that a higher pain intensity is almost inevitable. Most research on the link between sexuality and illnesses

has focused on sexual terms, such as STIs (Nack, 2011) or breast cancer (Martinez, 2009). The scholarship on the association between sexual matters and illnesses or disabilities beyond sexual terms is scarce. Among these studies, the work of Bender (2012) on the sexuality of women with spinal cord injury and Schlesinger's (1996) analysis of the sexual lives of women experiencing chronic pain are worth mentioning. However, much of the research on health relies on self-reported health, which is more commonly found in most surveys on family topics. In their cross national study of subjective sexual well-being, Laumann et al. (2006) reported that self-rated health was positively related to sexual well-being. Good self-reported health is also associated with other aspects of sexual expression, such as sexual activity (Lindau and Gavrilova, 2010) and sexual desire (Kontula & Haavio-Mannila, 2009).

#### *Prior sexual and cohabiting experiences*

Earlier life course romantic and sexual experiences are related to the present partnered sexual expression and relationship happiness and all these observations are interpreted as part of the life course theory (DeLamater & Carpenter, 2012). For example, having experienced sex abuse is related to higher levels of present sexual dysfunction (Browning & Laumann, 1997), and behavioural and mental health outcomes (Jones et al., 2015). Having lived with someone other than the present spouse or having been married previously is associated with lower marital quality (Rhoades & Stanley, 2014). Other research points out that having cohabited with multiple partners is a risk factor for divorce (Lichter & Qian, 2008). At the same time, having had multiple sexual partners before marriage is associated with lower marital quality, especially for women. The same study indicates that respondents who had had sex only with their (future) spouse benefit from higher marital quality (Rhoades & Stanley, 2014). Another study reveals the opposite: the number of sex partners is negatively associated with sexual satisfaction for men, but it does not have any statistical significance for their relationship happiness while for women the variable is not important (Heiman et al., 2011). Also having

children is known to affect both sexual and relationship satisfaction (Doss et al., 2009; Schlagintweit et al., 2016; Umberson et al., 2010). The cumulative evidence suggests that all the aforementioned aspects are associated with sexual expression and relationship happiness; we include these factors in our analytical approach to see if and how they mediate on one hand the relationship between partnership type and sexual expression, and, on the other hand, between partnership type and relationship happiness.

## **Method**

### *Data and analytical sample*

Data from the 2010-2012 National Study of Sexual Attitudes and Lifestyles (Natsal-3), which interviewed 15162 women and men in Britain, aged 16-74 years old, are used to study the sexual expression and relationship happiness in couples. Of interest for this article are 6572 cases, of which 3985 are women and 2587 are men who were asked the relevant questions on sexual expression and relationship happiness. Only people whose last sexual act with any of their last three sexual partners in a living in or steady relationship and whose relationship is ongoing are eligible to respond about the sexual expression and relationship happiness.

Individuals removed from the sample includes those not sexually active in the last year before the interview<sup>3</sup> (3030), those who reported having had concurrent sexual relationships in the last year before the interview (877), those who had serial monogamous sex partnerships in the last year before the interview (781), those with more than two sex partners in the last year, but who do not remember if the partners were concurrent or not (914), those with unknown number of partners in the last year (493), those in a same sex relationship with their most recent sex partner (142). Individuals in any other type of sexual relationship (e.g. “recently met”) with their most recent sex partner (2334) and other 19 data

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<sup>3</sup> this includes respondents who had reported neither a homosexual, nor a heterosexual partner in the last year before the interview

inconsistencies are also not part of the analytical sample. In order to merge the co-residential partnership status with the sexual relationship status, we restrict the analysis at monogamous people in the last year before the interview. Furthermore, because the items ask about the sexual aspects in the last year, we keep only respondents who have been in a type of “living in/married” or “steady” sexual relationship with their most recent sex partner for at least one year before the interview.

### *Dependent variables*

The focus of this paper is on four outcomes: three dependent variables are aspects of sexual expression within romantic partnerships, and the fourth one measures overall relationship happiness. The sexual expression dimensions within partnerships are: emotional connection with partner during sex, the compatibility between partners in terms of their sexual interest, and the compatibility between partners in terms of their sexual preferences. Respondents are asked to think about their relationship with their partner in the last year and to assess these sexual expression measures. The emotional connection during sex<sup>4</sup> is introduced in the questionnaire by asking the respondents to rate the item “I feel emotionally close to my partner when we have sex together” on a 5 point Likert response scale of frequency, where 1 means “always” and 5 “hardly ever”. The compatibility in sexual interest<sup>5</sup> is operationalised asking the participants to rate the item “My partner and I share about the same level of interest when having sex” on a 5 point Likert scale of agreement, where 1 means “agree strongly” and 5 “disagree strongly”. The compatibility in sexual preferences<sup>6</sup> is introduced by asking the respondents to rate the item “My partner and I share the same sexual likes and

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<sup>4</sup> The terms “emotional connection with partner during/when having sex”, “emotional closeness to partner during/when having sex” or simply “emotional connection” are used interchangeably in this paper;

<sup>5</sup> The terms “compatibility between partners in sexual interest”, “similar sexual interest as partner”, “compatibility in sexual interest” or simply “sexual interest” are used interchangeably in this paper

<sup>6</sup> The terms “compatibility between partners in sexual preferences”, “compatibility in sexual preferences” or simply “sexual preferences” are used interchangeably in this paper;

dislikes” on a 5 point Likert scale of agreement, where 1 means “agree strongly” and 5 “disagree strongly”. Finally, the fourth dependent variable measures overall relationship happiness with partner on a 7-point Likert response scale (where 1 means “Very happy” and 7 “Very unhappy”; see Appendix 1, Fig 1). The values on the response scales for all the outcome variables have been reversed coded, with higher scores indicating better sexual expression and relationship happiness.

These items were developed by Mitchell and Wellings (2013) from qualitative work where respondents were asked to speak about “good enough” sex and to describe the ideal sex life (Mitchell et al., 2012, 2013).

#### *Independent variables*

The main independent variable is partnership type, which refers to married, cohabiting and living apartcouples. This variable is derived according to the sexual past of respondents. The first step of selection includes reducing respondents at having been sexually monogamous in the last year before the interview. The second step includes respondents whose last sexual act was in a “living in/married” or “steady relationship”. Therefore, respondents’ sexual partnership status was coded as living in/married and steady relationship. Using the sexual partnership status and the legal and mixed de-facto partnership status we classified respondents into a) married; b) cohabiting and c) LAT. Finally, the small number of inconsistencies (18 married individuals with a LAT sexual partner and one respondent without co-residential status found in “living in/married” sexual partnership) are not included as it is difficult to ascertain their circumstances. Same-sex couples and civil partners are not part of the analytical sample, since we want to include only heterosexual individuals.

Relationship duration measures the time since the respondent began his current sexual relationship in years. Age is categorised in groups: 16-29, 30-39, 40-49, 50-59, and 60+ years old. While there is no specific threshold for categorising ages into life course sequences, each



age group broadly represents peoples' life stages. The first group roughly captures the adolescence and the "emerging adulthood" period of life (Arnett, 2000). which tends to be characterised as a largely positive development, covering from ages 18-25 years, where people explore their identity and experiment. However, Stone et al., (2014) view individuals between 16 and 34 years old as corresponding to the "young adults" life stage, arguing that in the UK the transition to adulthood is being postponed, since more young adults are living with their parents in their twenties and early thirties. Hence, those in the age groups of 30-39 could also be generally viewed as young adults. The age groups of 40-49 and 50-59 mark broadly the start of menopause for women, and, in general, they represent those in mid-life. The last age group represents the elderly.

The number of children is a numerical discrete variable. The number of heterosexual and homosexual partners the respondent ever had is a categorical variable, topped up at more than 5 sex partners in life. Respondents' experiences of sex against their will is measured by a dummy variable. Respondent's health is a dummy variable indicating if, in the last year, the respondent has had any health condition or disability which affected his sexual activity or enjoyment in any way. Respondents' past cohabiting experience is also a dummy variable indicating if they previously lived with someone as a couple, including past marriages. Respondent's educational attainment is a categorical variable measuring the highest academic qualification the respondent holds.

### *Analytical approach*

Descriptive analyses were undertaken to examine the bivariate relationships between partnership type and gender and our dimensions of sexual expression and relationship happiness (Tables 1 and 2). To answer to our research questions, we run proportional odds model (POM) - which is the most common model from the family of ordinal logit regression models – for all the outcome variables. Because the three items are measured on 5, and

respectively 7 points ordinal scales, the proportional odds model is the most suitable type of regression analysis.

Four multivariate regression models, for each dependent variables, are step-wise built (Tables 3 and 4): Model 1 includes partnership type, age groups, duration of relationship and number of children; Model 2 captures the respondents' sexual past and cohabiting experiences including items such as respondent's health status or disability affecting his sexual activity or enjoyment in the past year, numbers of sexual partners, if respondent ever had sex against his/her will and if respondent ever lived with someone as a couple. The last model builds on the previous ones and includes respondents' education. This is a control variable. Of course, many factors are related to couples' sexual expression, but we included the key covariates which we found in the literature.

Ordered logit models are estimated for all four outcome variables where the effects of predictors are allowed to differ by gender. Because none of the independent variables have more than 1% of missing cases, the missing data are treated in a listwise deletion fashion.

Several variables were dropped in our multivariate analyses either because they were collinear with other variables or because they were not associated with the outcomes. These included the number of hours worked per week, a dummy variable indicating if the respondent works in night shifts, and respondents' employment.

## **Preliminary Results**

### *Descriptive Results*

We show the weighted distribution of the dependent variables by partnership type and by gender and the estimated probability values of the design-based F statistic, which is the corrected Pearson chi-square of independence test based on weighted data. Table 1 below presents the distribution of the dependent variables by partnership type.

[Table 1 about here.]

The distribution of emotional closeness does not vary much by partnership type. LATs “agree strongly” in a higher proportion (33.7%) than marrieds (22.8%) and cohabiters (19.1%) about sharing the same level of interest in having sex with their partners. Married people “disagree” in the highest proportion about sharing the same sexual preferences (8%) as compared to cohabiting (7.2%) and LAT individuals (6%). At the same time, more LATs than marrieds or cohabiters place themselves at the highest extreme of the response scale, sharing the most similar sexual preferences as their partners (33.6% vs. 26.7% and 23.7%). Married people are the happiest with their relationship, followed by cohabiters and LATs, as found in previous research (Tai et al., 2014). The probability values of the design-based F statistic test suggest that there is no relationship between partnership type and participants’ reporting of emotional closeness, but there is a relationship between all the other sexual expression dimensions and partnership type and between relationship happiness and partnership type. We further look at how the dependent variables vary by gender and the results are presented in Table 2 below.

[Table 2 about here.]

We notice that the distribution of the dependent variables does not vary much by gender, but there is a relationship between all four outcomes and gender. With respect to emotional connection with partner when having sex, both males and females report similar percentages for all the response levels. A slightly higher proportion of males (4.3%) than females (3.3%) “disagree” about sharing the same sexual preferences as their partners. A slightly higher proportion of females (12%) than males (10%) disagree in sharing the same

level of interest in having sex as their partners. It seems that more females (4.4% and 4.1%) than males (3.3% and 3.6%) declare that they are “very unhappy” and unhappy with their relationship. Since theory and empirical research suggest men and women experience sexuality in different ways (Diamond, 2008; Peplau, 2001), the regression models are run separate by gender.

### *Multivariate analysis*

Below we present the regression results separate by men and women (Table 3 and Table 4). The results are presented in proportional odds ratios, which are the exponentiated coefficients from the ordinal regression models. A coefficient with an odd ratio greater than 1 suggests high levels rather than the combined middle and low levels of emotional closeness (“I feel emotionally close to my partner when we have sex together”), high rather than the combined middle and low compatibility between partners in sexual interest (“My partner and I share about the same level of interest in having sex”), and high rather than the the combined middle and low compatibility between partners in sexual preferences (“My partner and I share the same sexual likes and dislikes”). A coefficient with an odd ratio lower than 1 indicates low rather than the combined middle and high levels of emotional closeness, low rather than the combined middle and high compatibility between partners in sexual interest and in sexual preferences. The present results suggest that partnership type is associated with sexual expression and relationship happiness for both females and males. The results are presented comparing the coefficients of the covariates across the three regression models for each outcome, for females and males, with a focus on the partnership status, the key independent variable.

[Table 3 about here.]

[Table 4 about here.]

Emotional closeness during sex is not associated with partnership status for males, but it is for females. In Model 1, living apart together females report lower emotional closeness to their partners as compared to married women. However, the association disappears once we account for the sexual and cohabiting past in Model 2, and the coefficient remains non-significant once we add the control variable in Model 3. Females younger than 50 years old are more likely than teenagers to report lower levels of emotional connection with partner during sex across all three models; no association between emotional closeness and age is observed for men. Whereas women in longer relationships are more likely to report low emotional closeness to partners during sex, for men relationship duration is not associated with emotional closeness. Both men and women with one child as compared to those childless report lower emotional closeness to their partners during sex, across all three models. However, in Model 3, when we add education, females with two children are also more likely than those childless to feel low emotional connection with their partners. There is also evidence of gender variance when we consider the covariates in Model 2. Women's level of emotional closeness to their partners is related to their previous sexual and cohabiting past. Women who experienced health and disability problems, and sex attempts without their will express a reduced emotional connection with their partners as compared to those who did not experience these events. Women who cohabited before report a higher emotional connection with their partners when having sex as compared to those who did not; for men, we do not observe any relationship between emotional connection and their sexual and cohabiting past. However, men who had more than five sex partners as compared to those who had only one

sex partner report lower emotional connection; for women, emotional connection is lower for those who had more than 3 sex partners as compared with those who had only one sex partner in their life. Even if education is not the focus of this paper, we notice that women with a degree level as compared to those with further/higher education (higher education/A-level) are more likely to feel less close to their partners during sex; for men, there is no relationship between education and emotional closeness.

The compatibility between partners in sexual interest is associated with partnership type for both females and males, across all three models. Living apart together men and women as compared to those married report more similar sexual interest as their partners. The coefficients are significant across all three regression models. However, we observe that the magnitude of the coefficients does not change much once the other covariates are step-wise introduced, suggesting that the previous sexual and cohabiting experiences (Model 2) and education (Model 3) do not mediate the relationship between respondents' reporting of compatibility in sexual interest with partner and partnership type. Women across all the life span, with the exception of those more than 60 years old, are less compatible in sexual interest with their partners as compared to teenagers. However, in the Models 2 and 3 only women less than 50 years old report less similar sexual interest as their partner as compared to teenagers. For males there is a similar pattern: young adults' males and those in mid life (up to 50 years old) are more likely to report less compatibility in sexual interest with their partners than teenagers. Nonetheless, age is not related to males' sexual interest in the third model, suggesting that education mediate the relationship between age and males' compatibility in sexual interest with partner. For both males and females, the compatibility in sexual interest with partner is low at later stages of relationship. For males there is no relationship between having children and sexual interest. For women, having one child is associated with low levels of compatibility in sexual interest with partner. The females'

sexual interest is negatively associated with their past sexual experiences, but not with their cohabiting experience. Among males' past sexual and cohabiting experiences, only having had health and disability problems affecting sexual activity or enjoyment in the past year and having more than three sex partners are associated with low reports of compatibility in sexual interest with their partners. Females with secondary level education and those without any qualification are more likely than those in further/higher education to report higher compatibility in sexual interest with partner; men with a degree level qualification as compared to those with further/higher education are more likely to report lower compatibility in sexual interest with partner.

Compatibility in sexual preferences is associated with partnership type for males, across all three regression models, but not for females. It might be that it is not important which type of partnership women have when assessing the compatibility in sexual preferences with their partners. In case of males, the magnitude of the regression coefficients does not change much across all the three models, indicating that all the other covariates from Models 2 and 3 do not mediate the relationship between partnership status and compatibility in their sexual preferences with partner. For females, compatibility in sexual preferences is not associated with age, but it is lower at later stages of relationship. Having one child reduces the compatibility in sexual preferences as compared to being childless. For men, compatibility in sexual preferences is lower for those younger than 40 years old as compared to teenagers in Model 1. However, in Model 2 only men in the age group of 30-39 declare less compatible with their partners in sexual preferences as compared to teenagers, whereas in Model 3 the effect of all the age groups disappears. Compatibility in sexual preferences is low at men in later stages of the relationship and it is not related to the number of children men has. Among sexual and cohabiting past block of variables in Model 2, women's sexual preferences are negatively associated with having had health and disability problems

affecting sexual activity or enjoyment in the last year and having experienced sex attempts without their will. For men, only health and disability problems and having more than 5 sexual partners in life are associated with low compatibility in sexual preferences with their partners. Education is not related to men's compatibility in sexual preferences, but for women, having just a degree level is associated with lower compatibility in sexual preferences as compared with high educated women.

Relationship happiness is related to partnership status in a similar way for both men and women. Living apart together and cohabiting women and men declare less happy in their relationship as compared to their married counterparts. This finding confirms the literature, which broadly suggests that married people are happier than those cohabiting and LATs (Tai et al., 2014). Similar to the other sexual expression outcomes, the magnitude of these coefficients do not change once we control step-wise for the sexual and cohabiting past of respondents and their education. In Model 1, females' relationship happiness is lower for those in mid-life than for teenagers. However, in the second and third model, relationship happiness is not anymore related to women's age. Women's relationship duration is negatively associated with relationship happiness, but only in the second and third model. Relationship happiness is lower for women with children as compared to childless, across all three models. Among the variables in Model 1, men's relationship happiness is not associated with their age, relationship duration or with having children, across all three models. Among the variables in Model 2, women's relationship happiness is lower for those who had more than 5 sex partners as compared with those who had only one lifetime sex partner. Women's low relationship happiness is also associated with having experienced sex attempts against their will. In Model 2, for men, low relationship happiness is related to having had any health and disability problems affecting sex activity or enjoyment in the last year and having had



more than 3 sex partners in their life. Relationship happiness is not related to education neither for females, not for men.

### **Discussion and next steps**

The aim of this study was to see if and how sexual expression and relationship happiness compares across living apart together, cohabitation and marriage. Our empirical results suggest at least five conclusions. First, the distribution of the sexual expression and relationship happiness does not vary much by gender. This may reflect an overall good compatibility in the couple.

Second, the distribution of compatibility between partners in terms of their sexual interest varies by partnership type, more than the other sexual expression items. Individuals in LAT express the least disagreement in sharing the same level of sexual interest as their partners. They also report the most agreement in sharing the same level of sexual interest as their partners. It might be that the distance keeps the fire alive and provides one reason more for the members of the couple to stay together. Married individuals report the highest levels of relationship happiness as compared to cohabiters and LATs, in line with other research (Tai et al., 2014).

Third, our results from the regression models suggest that sexual expression and relationship happiness differ across partnership type, even when compositional factors are controlled. Both men and women in LAT are more compatible in terms of their sexual interest as compared to those married. Compatibility between partners in sexual preferences differ by partnership type only for men: those in LAT as compared to married individuals share more similar sexual preferences. For women, the partnership type is not related to their reports of compatibility in sexual preferences with partner. It might be that for women aspects related to sexual preferences (measured in the survey as “sexual likes and dislikes”)

may be less dependent of physical intimacy and more dependent on the emotional and relational aspects of the relationship. For example, feminist authors have found that women's sexual satisfaction is related more to the qualities of the relationship they are engaged in and less to the physical contacts (McCormick, 1994; Poulin, 1992). It may be more likely that for men sex is an important drive in a relationship at distance and hence they might try more to meet the sexual preferences of their partners.

Fourth, our analysis reveals that cohabiting men and women are similar to married individuals in their sexual expression. The lack of difference between cohabiting and marriage with respect to sexual expression might indicate that both types of partnership provide similar social and emotional context for expressing intimacy and sexuality. The general trend in increased prevalence and acceptance of cohabitation in the UK and the similar meaning of personal commitment individuals attach to marriage and cohabitation (Berrington et al., 2015), might explain that cohabitation is no different than marriage for sexual expression.

Fifth, cohabiting individuals report lower levels of relationship happiness than married individuals. Living apart-together individuals also report lower levels of relationship happiness than the marrieds. This finding supports the other studies on the differences between marrieds and cohabiters in relationship happiness, stressing the idea that marriage provides more benefits with respect to relationship well-being. However, marriage does not provide any benefits for feelings such as emotional closeness to partner or compatibility in sexual interest and preferences with partner.

Finally, respondents' health and disability affecting their sexual activity or enjoyment in the last year, respondents' sexual and cohabiting past and their education do not mediate the effect of partnership type on sexual expression since the magnitude of the coefficients do not change much when these covariates are introduced in the regression models. However,

women's past cohabiting experiences and their sexual past is more frequent associated with their sexual expression and relationship happiness than men's.

The next steps of the analysis include categorising age in broader age groups as to permit interaction effects between age groups and partnership status (we found no married people between 16-19 years old). We believe that couples at different ages differ with respect to sexual expression and relationship happiness. A pooled model where we intersect gender and partnership type will reveal how men and women in different type of couples differ when they rate the three sexual expression dimensions and relationship happiness. A series of robustness check include treating relationship duration as a grouped variable. Relationship duration as a metric covariate together with a quadratic term and interaction effects between age groups and partnership completes the series of robustness checks.

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## Tables

Table 1. The distribution of dependent variables by partnership type

emotional connection	Weighted %				p (design based F statistic)
	Marrieds	Cohabitors	LATs	Total	
Hardly ever	0.5	0.6	0.8	0.5	0.41
Not very often	1.1	1.0	0.9	1.0	
Sometimes	7.1	7.5	7.9	7.3	
Most of the time	31.0	30.5	26.2	30.3	
Always	59.8	60.4	63.9	60.4	
Not answered	0.4	0.2	0.3	0.3	
<b>sexual interest</b>					0
Disagree strongly	3.5	4.0	2.3	3.4	0
Disagree	23.4	22.2	14.0	22.0	
Neither agree or disagree	15.5	13.5	9.1	14.3	
Agree	38.2	37.3	40.6	38.3	
Agree strongly	19.1	22.8	33.7	21.6	
Not answered	0.4	0.2	0.3	0.3	
<b>sexual preferences</b>					0
Disagree strongly	0.5	1.0	0.5	0.6	0
Disagree	8.0	7.2	6.0	7.6	
Neither agree or disagree	14.2	11.9	11.0	13.4	
Agree	53.3	53.0	48.5	52.6	
Agree strongly	23.7	26.7	33.6	25.4	
Not answered	0.4	0.2	0.3	0.3	
<b>relationship happiness</b>					0
Very unhappy	8.2	6.1	7.3	7.8	0
2	7.2	9.5	7.7	7.7	
3	6.3	7.7	10.7	7.1	
4	3.0	4.7	5.6	3.6	
5	8.3	8.6	10.4	8.6	
6	19.7	22.9	20.8	20.4	
Very happy	46.8	40.4	37.2	44.5	
Not answered	0.3	0.2	0.3	0.3	
N (weighted)	5403	1346	969	7718	
N (unweighted)	3386	1352	1384	6572	
Total	100	100	100	100	



Table 2. The distribution of dependent variables by gender

emotional connection	weighted %			p (design-based F statistic)
	Female	Male	Total	
Hardly ever	0.7	0.4	0.5	0
Not very often	1.6	0.5	1.0	
Sometimes	7.9	6.7	7.3	
Most of the time	31.9	28.7	30.3	
Always	57.6	63.3	60.4	
Not answered	0.4	0.3	0.3	
<b>sexual interest</b>				0.03
Disagree strongly	1.8	1.7	3.4	0.03
Disagree	12.0	10.0	22.0	
Neither agree or disagree	6.7	7.6	14.3	
Agree	18.9	19.4	38.3	
Agree strongly	11.1	10.5	21.6	
Not answered	0.2	0.2	0.3	
<b>sexual preferences</b>				0
Disagree strongly	0.3	0.3	0.6	0
Disagree	3.3	4.3	7.6	
Neither agree or disagree	5.8	7.5	13.4	
Agree	26.9	25.7	52.6	
Agree strongly	14.1	11.4	25.4	
Not answered	0.2	0.2	0.3	
<b>relationship happiness</b>				0.001
1 Very unhappy	4.4	3.3	7.8	0.001
2	4.1	3.6	7.7	
3	4.0	3.1	7.1	
4	2.0	1.6	3.6	
5	4.3	4.3	8.6	
6	9.3	11.1	20.4	
7 Very happy	22.3	22.2	44.5	
Not answered	0.2	0.1	0.3	
N (weighted)	3907	3811	7718	
N (unweighted)	3985	2587	6572	
Total	100	100	100	

Table 3. Regressions of Emotional connection, Sexual interest, Sexual preferences, Relationship happiness for Females

Females												
VARIABLES	Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)		
	Emotional connection			Sexual interest			Sexual preferences			Relationship happiness		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Partnership type (ref. Marrieds)</i>												
Cohabitors	0.84	0.88	0.86	1.01	1.09	1.03	0.91	0.92	0.90	0.59***	0.62***	0.61***
LATs	0.75*	0.85	0.82	1.35**	1.53***	1.42**	0.93	0.98	0.96	0.56***	0.55***	0.54***
<i>Age groups (ref. 16-19)</i>												
20-29	0.56*	0.57*	0.62	0.59**	0.67*	0.74	0.82	0.82	0.87	0.83	0.94	0.93
30-39	0.44***	0.45**	0.52*	0.51***	0.61*	0.71	0.83	0.83	0.90	0.77	0.91	0.90
40-49	0.43***	0.47**	0.53*	0.52***	0.67	0.77	0.91	0.93	1.00	0.60*	0.74	0.74
50-59	0.62	0.73	0.82	0.76	1.11	1.25	1.04	1.10	1.18	0.61*	0.80	0.79
60+	0.93	1.15	1.29	0.83	1.26	1.38	1.11	1.18	1.25	0.67	0.88	0.87
<i>Relationship duration</i>												
<i>Number of natural children (ref. 0)</i>												
1	0.73**	0.72**	0.69**	0.83	0.84	0.78*	0.82	0.82	0.80*	0.74**	0.76**	0.75**
2	0.84	0.81	0.77*	0.91	0.90	0.83	0.97	0.98	0.94	0.76**	0.77**	0.77**
3+	0.85	0.85	0.80	1.04	1.09	0.97	1.05	1.09	1.04	0.71**	0.73**	0.73**
<i>Health and disability problems (ref. No)</i>												
Yes		0.67***	0.67***		0.46***	0.46***		0.70***	0.70***		0.87	0.87
<i>No. of sexual partners in life (ref. 1)</i>												
2		0.87	0.86		0.77*	0.76*		1.03	1.03		0.86	0.85
3-4		0.70**	0.69**		0.70***	0.69***		1.02	1.01		0.83	0.83
5+		0.72**	0.71**		0.64***	0.63***		1.01	1.01		0.79*	0.79*
<i>Attempt sex without respondent's will (ref. No)</i>												
Yes		0.61***	0.62***		0.63***	0.64***		0.75**	0.76**		0.84*	0.84*
<i>R lived with someone as a couple (ref. No)</i>												
Yes		1.43	1.45*		1.24	1.21		1.10	1.11		0.89	0.88

Table 3 continued

VARIABLES	Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)		
	Emotional connection			Sexual interest			Sexual preferences			Relationship happiness		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Educational attainment (ref. higher education/A-level)</i>												
degree level qualification			0.75**			0.84			0.82*			1.07
gcse, o-level/equivalent/other			0.91			1.23*			0.93			1.11
none			0.94			1.47**			1.04			1.13
Observations	6,549	6,517	6,514	6,550	6,518	6,515	6,549	6,517	6,514	6,549	6,517	6,514

Notes: NATSAL-3 data, own computations;

Model 1 includes: partnership type, age groups, relationship duration, number of children;

Model 2 adds to Model 1: respondent's health and disability status in the last year, number of sexual partners (heterosexual and homosexual) in life, if someone attempted sex without respondent's will, number of times respondent lived in with someone;

Model 3 adds to Model 2: educational attainment;

POM: proportional odds model; the results are presented in odds ratios; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Table 4. Regressions of Emotional connection, Sexual interest, Sexual preferences, Relationship happiness for Males

Males												
VARIABLES	Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)		
	Emotional connection			Sexual interest			Sexual preferences			Relationship happiness		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Partnership type (ref. Marrieds)</i>												
Cohabitors	0.84	0.89	0.87	1.00	1.06	1.01	1.06	1.10	1.08	0.77*	0.81	0.78*
LATs	1.04	1.02	1.01	1.95***	1.94***	1.89***	1.42*	1.47*	1.43*	0.56***	0.62**	0.60**
<i>Age groups (ref. 16-19)</i>												
20-29	1.02	1.24	1.27	0.28***	0.33**	0.37**	0.46*	0.51	0.55	1.09	1.16	1.18
30-39	0.68	0.87	0.91	0.27***	0.34**	0.39*	0.39**	0.46*	0.50	0.85	0.93	0.95
40-49	0.81	1.12	1.14	0.29***	0.38*	0.43*	0.54	0.66	0.70	0.79	0.91	0.91
50-59	0.67	0.98	1.00	0.38**	0.53	0.58	0.58	0.74	0.79	0.76	0.93	0.92
60+	1.01	1.49	1.50	0.59	0.83	0.91	0.72	0.90	0.95	0.93	1.16	1.12
<i>Relationship duration</i>	1.00	1.00	1.00	0.98***	0.98***	0.98***	0.98***	0.98***	0.98***	1.00	0.99	0.99
<i>Number of natural children (ref. 0)</i>												
1	1.43**	1.49**	1.49**	1.04	1.07	1.05	1.26	1.28	1.26	1.00	1.02	1.02
2	1.04	1.06	1.05	0.88	0.89	0.86	1.00	1.00	0.98	0.93	0.93	0.92
3+	0.98	1.03	1.01	0.79	0.82	0.79	0.95	0.99	0.96	0.84	0.87	0.85
<i>Health and disability problems (ref. No)</i>												
Yes		0.81	0.80		0.71**	0.70**		0.76*	0.75*		0.74*	0.73**
<i>No. of sexual partners in life (ref. 1)</i>												
2		0.74	0.73		0.78	0.77		0.71	0.70		0.90	0.89
3-4		0.74	0.73		0.70*	0.69**		0.79	0.79		0.59**	0.59**
5+		0.65**	0.64**		0.73**	0.71**		0.73**	0.72**		0.64**	0.63***
<i>Attempt sex without respondent's will (ref. No)</i>												
Yes		0.84	0.84		0.79	0.79		0.94	0.93		0.74	0.75

Table 4 continued

VARIABLES	Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)			Proportional Odds Model (POM)		
	Emotional connection			Sexual interest			Sexual preferences			Relationship happiness		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>R lived with someone as a couple (ref. No)</i>												
Yes		0.87	0.87		0.86	0.88		0.95	0.95		1.25	1.27
<i>Educational attainment (ref. higher education/A-level)</i>												
degree level qualification			0.94			0.68***			0.90			0.88
gcse, o-level/equivalent/other			1.07			1.03			1.19			0.96
none			1.26			1.29			1.30			1.53
Observations	6,560	6,541	6,540	6,560	6,541	6,540	6,560	6,541	6,540	6,561	6,542	6,541

Notes: NATSAL-3 data, own computations;

Model 1 includes: partnership type, age groups, relationship duration, number of children;

Model 2 adds to Model 1: respondent's health and disability status in the last year, number of sexual partners (heterosexual and homosexual) in life, if someone attempted sex without respondent's will, number of times respondent lived in with someone;

Model 3 adds to Model 2: educational attainment;

POM: proportional odds model; the results are presented in odds ratios; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05