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Young people, partner abuse and sexual health: indicators of increased risk --Manuscript Draft--

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Abstract:	Partner abuse (PA) is common among young people, but is often missed by professionals working in health, social care, education and the criminal justice system. This paper explores the types of PA experienced by young people and links with sexual health to see whether there are factors which indicate greater vulnerability to abuse. Young people aged 16 to 20 from across the UK (n=1,754) completed an online survey in 2010-11. We report experience of emotional, physical and sexual partner abuse and model the associations with demographic and sexual health variables in bivariate analysis using logistic regression. A third of participants reported one or more types of partner abuse within the previous three months, regardless of gender of partner. Partner abuse was significantly associated with sexually transmitted infection (Odds Ratios 1.6 and 2.9 for young women and young men respectively), regretted sex (OR 2.7 and 1.9), distress or worry about sex life (OR 2.7 and 4.6), sexual problems, numbers of sexual partners (OR 1.2 for each additional partner), and sexual health service use (for young men) (OR=1.9). These 'indicators' may be noticed by professionals who work with young people, and can act as prompts to ask about partner abuse.			
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Please enter 2-3 single sentence bullet points describing the key messages of the paper.	-Young people with greater numbers of sexual partners, sexually transmitted infection or sexual problems are more likely to suffer partner abuse -More than a third of those who regretted sex, or who felt distressed or worried about their sex lives had experienced partner abuse			
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Young people, partner abuse and sexual health: indicators of increased risk

INTRODUCTION

Partner abuse (PA) refers to controlling, coercive or threatening behaviour, violence or abuse from an intimate partner regardless of gender or sexuality, and includes emotional, physical and sexual abuse, and control of freedom and resources. Partner abuse is a global, gendered problem (Heise and Kotsadam, 2015). It affects men as well as women, although women suffer more sexual abuse, more severe physical abuse, and more coercive control than men (Feder and Howarth, 2014). The lifetime prevalence of partner abuse internationally ranges from 15% to 71% (Garcia-Moreno et al, 2006). In England and Wales, an estimated 6.5% of women and 2.8% of men aged 16 to 59 experienced partner abuse in 2016, with a lifetime prevalence of 28.3% and 14.7% respectively (Office for National Statistics, 2017).

Partner abuse also occurs in young people's relationships, at higher rates than for older age groups. Women aged 16 to 19 were more likely than older age groups to experience domestic abuse (13.1% compared with 6.8% overall), (Office for National Statistics, 2015) and the same is true for young men (7.5% compared with 3.0%). Young women were also more likely to be victims of sexual abuse and stalking compared with older age groups (Office for National Statistics, 2015). For many young women, their first sexual experience is coerced: 17% of women in Tanzania, 24% of women in Peru, and 30% of women in Bangladesh reported their first sexual experience as forced (Garcia-Moreno et al, 2006). PA is the second most common

risk factor for disability adjusted life years globally in women aged 20 to 24 years (Mokdad et al, 2016).

A UK school survey found that 72% of girls and 51% of boys aged 13 to 17 had been subject to emotional violence from a partner (Barter et al, 2009). Twenty-five percent of girls and 18% of boys had suffered physical violence, and 31% of girls and 16% of boys had suffered sexual violence. In the National survey of Sexual Attitudes and Lifestyles (NATSAL-3), 6.9% of young women and 0.8% of young men aged 16 to 24 reported non-consenting sex (ever) (Macdowall et al, 2013). Intimate partner violence is therefore more commonly experienced by girls than by boys, but is also more often ongoing, and has a greater negative impact on girls' wellbeing (e.g. feeling frightened or upset).(Barter et al, 2009)

Intimate partner violence damages health (Trevillion et al, 2012). Women who experience intimate partner violence are at greater risk of chronic health conditions, including gynaecological problems, gastrointestinal disorders, neurological symptoms, chronic pain, cardiovascular conditions and mental health problems (particularly post-traumatic stress disorder, depression, anxiety, suicidal thoughts, and substance misuse) (Ellsberg et al. 2008;Feder et al, 2011; Macdowall et al, 2013). The prevalence of domestic violence (including partner abuse) is high in primary care populations and amongst those who present to sexual health services, for example women seeking abortion, and women who are pregnant under 18 (Macdowall et al, 2013). PA is associated with adverse sexual health outcomes including sexually transmitted infection, vaginal discharge, chronic pelvic pain, sexual risk-taking, inconsistent condom use and sexual dysfunction (Coker 2007; Ellsberg et al, 2008).

Although partner abuse is so common, professionals working in health, education, social care and the criminal justice system may not be aware of it. For example, most women are not asked about abuse in health care settings, despite the clear links with ill-health (Feder et al. 2011). Young people may be reluctant to disclose partner abuse to adults. For example, only 8% of school-age girls and 7% of boys told a parent or carer about physical violence, and 3% of girls and 5% of boys told another adult (Barter et al, 2009).

In this paper we report the findings of a web-based sexual health survey of 1,754 young people living in the United Kingdom. We report in detail the type of partner abuse (PA) experienced by young women and men, and explore links with sexual health to see which factors might indicate increased vulnerability.

METHODS

Design and setting

This study is a cross-sectional survey of 1,754 young people aged 16 to 20, recruited mainly online. The survey comprised demographics and sexual health questions which were asked at baseline in an online randomised controlled trial of the Sexunzipped website (Bailey et al, 2013) (see Appendix – sexual health questionnaire). For this study of partner abuse, we analysed the baseline responses of all trial participants (before randomisation), treating the data as a non-randomly selected cross-sectional survey. The study was approved by the University College London ethical committee (reference 1023/002).

Participant recruitment

We advertised the study on sexual health websites and Facebook, sent an advert to schools and colleges, and invited participants to tell friends (Bailey et al, 2013). The advertisement featured

the Sexunzipped logo and asked, 'Interested in sexual health? Willing to help us with our research?' The study focused on many dimensions of sexual wellbeing, and was not specifically about intimate partner abuse. Eligible participants (young people 16 to 20 years old, resident in the United Kingdom) enrolled online through the Sexunzipped trial website, submitting consent online and completing the baseline questionnaire online before randomisation. The online trial system automatically assigned code numbers to participants to preserve their anonymity, and we stored electronic data securely on encrypted hard drives.

Outcome measurement

The Sexunzipped questionnaire featured items from validated sexual health outcome measurement instruments including indicators for AIDS prevention programs, (UNAIDS 2009) the National Survey of Sexual Attitudes and Lifestyles (Wellings et al, 2001) and the HARK four-question scale to assess intimate partner abuse (Sohal et al, 2007). The questionnaire solicited demographic information and sexual health outcomes including mediators of sexual behaviour change (sexual health knowledge, self-efficacy, and safer sex intention), sexual behaviour (condom and contraception use, use of services, and partner numbers), self-reported sexually transmitted infections, pregnancy, sexual problems, partner abuse, regretted sex, sexual pleasure, and relationship and sexual satisfaction (see Appendix: sexual health questionnaire) (Bailey et al, 2013). We asked six questions concerning partner abuse (see Box 1). Four questions were derived from the HARK abuse assessment tool (Pathak et al. 2017; Sohal et al, 2007). We adapted the wording of the third HARK question to omit the term 'raped' in the light of feedback from young people during qualitative field testing of the questions. Data were collected between November 2010 and March 2011.

Box 1. HERE - Partner abuse questions

Data analysis

We estimated proportions of young people experiencing emotional, sexual and physical abuse, and the associations with demographic and sexual health variables. A positive response to one or more of the HARK questions was taken to indicate PA. HARK 1 or 2 or Additional Question 1 were considered 'emotional abuse'; HARK 3 or Additional Question 2 were considered 'sexual abuse'; and HARK 4 was considered 'physical abuse'. We used bivariate logistic regression to model the associations of demographic and sexual health variables with partner abuse. We restricted this analysis to participants reporting opposite gender sexual partners (F-M and M-F) because of the small numbers of men with male partners (n=117), women with female partners (n=41), men with both gender partners (n=67), women with both gender partners (n=73), and transgender or other gendered people (n=12). Statistical analyses were conducted using STATA Version 12 (StataCorp LP, Texas, USA).

RESULTS

Participant recruitment

There were almost three million UK Facebook users aged 18-20 in 2010 (Inside Network 2012) but we do not know how many actually saw the advertisement or heard about the study via other routes. An estimated 6,710 people viewed the Sexunzipped study website: 4,931 of these met the eligibility criteria for age and UK residence and 2,036 of those (41%) submitted online questionnaire data (See Consort diagram). Most participants were recruited via Facebook (84%), with others via friends or relatives (9%), email (4%), and through school or college (2%) (Bailey et al, 2013)

Participant identity verification and data cleaning

Eighteen participants withdrew, and twelve registered more than once so were removed from the data set. Sixty six participants who gave inconsistent answers to sexual health questions were removed, and we also excluded 119 participants who were not in sexual relationships in the last three months and 108 who had never had (genital) sex, since self-reported STI was a principal outcome of interest. These categories were not mutually exclusive. Twenty three people whose own or partners' gender was transgender or 'other', could not be included, since the numbers were too small to do meaningful analyses. We analysed data from the remaining 1,754 participants.

Consort diagram here -

Participants

Two thirds of participants were female (1129/1754). Participants ranged in age from 16 to 20 with a median age of 19 years, recruited from across the UK (Bailey et al, 2013). Ninety percent of participants were White (British, Irish, European or other); 2.2% Black (British, Caribbean, African or other); 2.2% Asian (British, Chinese, Pakistani, Indian or other); 3.3% of mixed cultural background; and 0.1% 'other'. Most (79%) were still in education. Most sexual partnerships within the last 3 months were with opposite-gender partners (Table 1), and most young people reported being in a relationship with one person (*see Appendix - Supplementary data*).

Partner abuse by gender and gender of partner/s

A third of all participants reported one or more types of partner abuse within the previous three months, regardless of gender of partner (31% of young women (n=347/1129) and 35% of young

men (n=217/625)). Emotional abuse and control were the most common forms of abuse reported by both male and female participants, with 10% to 37% reporting this over the last three months (Table 1).

Table 1 HERE - Partner abuse by gender and gender of partner/s

Young people commonly experienced more than one type of abuse. Emotional abuse was reported by 26% of young women with male partners (n=1019), with 12% reporting sexual abuse or pressure and 7% physical abuse in the previous three months (see Figures 1 and 2). The proportions of types of abuse were similar for young men with female partners (n=441).

Figure 1. HERE - Young women with male partners: type of partner abuse in previous 3 months (n=1019)

Figure 2. HERE - Young men with female partners: type of partner abuse in previous 3 months (n=441)

Factors associated with partner abuse – young women with male partners

Factors associated with increased PA

There were significant associations of PA with regretted sex (OR 2.7; 95% CI 2.0 to 3.6); 1-5 episodes of unprotected anal sex (OR 1.7; 95% CI 1.1 to 2.6), self-reported STI (OR 1.6; 95% CI 1.1 to 2.5), lack of interest in sex (OR 1.7; 95% CI 1.3 to 2.3; vaginal dryness (OR 1.8; 95% CI 1.3 to 2.4); difficulty with orgasm (OR 1.8; 95% CI 1.3 to 2.6); distress or worry about sex life

(OR 2.7; 95% CI 1.9 to 3.9), and greater numbers of male sexual partners in the last three months (OR 1.2 for each additional partner, 95% CI 1.1 to 1.3) (Table 2).

Protective factors

There were significantly reduced proportions of PA over the previous three months in women who were not White (OR 0.6; 95% CI 0.4 to 0.9), women still in education (OR 0.7; 95% CI 0.5 to 1.0), and those in a relationship with one person (OR 0.5; 95% CI 0.4 to 0.7). We also found significantly reduced proportions of PA for women reporting greater emotional or physical pleasure at last sex (OR 0.4; 95% CI 0.3 to 0.6), (OR 0.5; 95% CI 0.4 to 0.7); greater satisfaction with relationships (OR 0.4; 95% CI 0.3 to 0.6); satisfaction with their sex lives (OR 0.5; 95% CI 0.4 to 0.8), and higher levels of safer sex communication self-efficacy (OR 0.4; 95% CI 0.3 to 0.6) (Table 2). There were no associations of partner abuse with unprotected vaginal sex, being too drunk or high to remember sex, use of any form of contraception, or use of sexual health services.

Table 2. HERE - Associations with partner abuse (≥1 HARK questions) – women with male partners

Factors associated with partner abuse – young men with female partners

Factors associated with increased PA

Young men with female partners who were not White were more likely to report PA (OR 2.1; 95% CI 1.1 to 3.8). We also found significant associations of PA with regretted sex (OR 1.9; 95% CI 1.1 to 3.2); self-reported sexually transmitted infection (OR 2.9; 95% CI 1.4 to 6.1); use of sexual health services (OR 1.9; 95% CI 1.1 to 3.2); lack interest in sex (OR 1.8; 95% CI 1.1 to 3.1); anxiety during sex (OR 1.0; 95% CI 1.0 to 1.0); distress or worry about sex life (OR 4.6;

95% CI 2.5 to 8.2), and greater numbers of female sexual partners in the last three months (OR 1.2 for each additional partner, 95% CI 1.0 to 1.3) (Table 3).

Protective factors

Men reporting greater physical pleasure at last sex (OR 0.5; 95% CI 0.3 to 0.9); and greater satisfaction with their relationships (OR 0.3; 95% CI 0.1 - 0.5) and satisfaction with their sex lives (OR 0.4; 95% CI 0.2 - 0.7) were less likely to have experienced PA (Table 3). For men, there were no associations between PA and still being in education, levels of self-efficacy, being too drunk or high to remember sex, or unprotected anal or vaginal sex (Table 3).

Table 3. HERE - Associations with partner abuse (≥1 HARK questions) – men with female partners

Partner abuse and regretted sex or distress or worry about sex life

Regretted sex, and distress or worry about sex life were associated with PA for both men and women, so we tested whether these variables might be useful as 'indicator' questions to help detect partner abuse by health professionals, combining data from both male and female respondents.

The proportion of those who regretted sex who had also experienced recent PA in the previous three months was 207/611 (positive predictive value 34%). The proportion of those who had not regretted sex who had not experienced PA was 950/1143 (negative predictive value 83%). The proportion of those who were distressed or worried about their sex lives who had also experienced PA in the previous three months was 130/344 (positive predictive value 38%). The

proportion of those who were not distressed or worried and who had not experienced PA was 1140/1410 (negative predictive value 81%).

DISCUSSION

Partner abuse was common in this population of young people who were recruited online, with emotional abuse and control the most common forms of abuse. PA is associated with a cluster of negative sexual health outcomes for young people with opposite gender partners. We found significant associations with regretted sex; sexual problems; reduced satisfaction with relationships and sex life; distress or worry about sex life; and reduced pleasure at last sex. PA was also associated with greater numbers of sexual partners in the last three months, unprotected anal sex (for women), and self-reported sexually transmitted infection. More than a third of those who had regretted sex recently, or who felt distressed or worried about their sex lives had experienced partner abuse.

We recruited a large number of young people from all four countries of the UK, but since participants in this study were not randomly selected, we cannot make inferences about the national prevalence of partner abuse. Soliciting data online facilitates honesty (Copas et al, 2002; Nicholas et al, 2013) and the high internal consistency of responses demonstrates good data validity. The associations with predictive variables are robust and provide insight into clusters of harms which are associated with PA. Sample sizes were not large enough to explore links with sexual health for young people in same-gender relationships.

There are inherent imprecisions in analyses of survey data (Potter, 2001). The study may have attracted young people who particularly wished to report their sexual health experiences (those with either positive or negative experiences). Abuse may be under-reported for many reasons including fear of the consequences (Andersson et al, 2010) not identifying with terms used to describe abuse (Evans et al, 2016) or perceiving it as normal (Barter, 2015). There are substantial gender differences in the experience of PA, over and above differences in prevalence (Barter et al, 2009; Brennan, 2009; Hester, 2013), but we did not measure intent, severity, frequency and impacts of PA (other than STIs) (Myhill, 2017). Two thirds of the participants were female and 90% of them reported opposite gender partners (F-M=1019/1129), so the precision of the analyses of these women's responses was greater than for the other groups. The cross-sectional nature of our data does not allow conclusions about causal pathways, and we did not conduct multi-variate analyses since clusters of adverse sexual health outcomes are linked with abuse in complex ways (Andersson et al, 2010).

Other studies have found that abuse was more commonly reported by young women than young men (Barter etal, 2009) and seems to be more frequent in young people who have sexual partners of both genders (Finneran and Stephenson, 2013; Macdowall et al, 2013; Mercer et al, 2007; Pathela and Schilllinger, 2010). The UK NATSAL-3 found associations between non-consenting sex and more lifetime sexual partners, STI, and low sexual function in both men and women (Macdowall et al, 2013) and PA was also associated with acquisition of HIV (Li et al, 2014). We found associations between PA and with unprotected anal sex in young women, but not with unprotected vaginal sex. Other studies describe links between PA and partner refusal to use a condom or not permitting women to use contraception (Fair and Vanyur, 2011). Sexual pressure

and control of freedom is common amongst young women and young men (Barter, 2015). The ubiquitous use of technology such as mobile phones and social networking sites provide avenues for abuse which particularly affect young people, and there are strong links between online abuse and physical abuse (Barter, 2015).

Young people may be reluctant to disclose partner abuse to anyone, especially adults (Barter et al, 2009). Healthcare services may be the only point of contact with professionals and there is polling evidence in England and Wales that children aged 11 to 17 have greater trust in doctors than in other groups of adults (Ipsos MORI, 2017). Adult women would like health care professionals to provide support (Feder et al, 2011), to be non-judgmental and nondirective, and to appreciate the complexity of partner violence (Feder et al, 2006), and men are also willing to being asked about abuse and violence in a health service setting (Morgan et al. 2014). We found an association between PA and use of sexual health services for young men (although men generally consult health services less frequently than women).

There are screening tools available to increase detection of abuse, but no evidence that screening and detection alone reduces future occurrence or the impact of abuse (O'Doherty et al, 2014). An effective alternative approach in health care contexts is to ask about the abuse in relation to symptoms and conditions that are associated with abuse, such as anxiety, depression, chronic pain, non-specific symptoms, and, after disclosure, to offer to refer on to specialist advocacy services (Feder et al, 2011 There are a cluster of adverse sexual health outcomes associated with PA which may be symptoms (e.g. STI or sexual problems), or factors which may emerge in a sexual history (e.g. larger numbers of sexual partners, regretted sex, distress or worry about sex

life). It is essential that disclosure is in patients' best interests, and will not lead to harms such as breaches of confidentiality and escalation of risk (Feder et al, 2006; Pathak et al, 2017) Clear pathways for referral are vital (Pathak et al, 2017). Improvement in the response to PA among young people and adults of any age needs to focus less on how people experiencing PA are identified and more on how to support them after disclosure (Feder, 2016).

CONCLUSIONS

Partner abuse is experienced by young women and young men, and is associated with a cluster of negative sexual health outcomes including sexually transmitted infections, higher numbers of sexual partners, sexual problems, regretted sex, and distress or worry about sex lives.

These 'indicators' may be noticed by professionals who work with young people in a variety of settings including health and social care, education, youth work, and the criminal justice system, and can act as prompts to ask about partner abuse.

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Young people, partner abuse and sexual health: indicators of increased risk

Box 1. Partner abuse questions

Adapted HARK abuse assessment screening questions

In the last 3 months, have you been....

- 1. Humiliated or emotionally abused in other ways by a partner or ex-partner?
- 2. Afraid of a partner or ex-partner?
- 3. Forced to have any kind of sexual activity by a partner or ex-partner?
- 4. Kicked, hit, slapped or otherwise physically hurt by a partner or expartner?

Response options: O Yes O No O Not sure

Additional questions:

In the last 3 months, has a partner...

- 1. Told you who you could see and where you could go
- 2. Pressurised you into any form of sexual activity?

Response options: O Yes O No O Not sure

Figure 1. Young women with male partners: type of partner abuse in previous 3 months (n=1019)

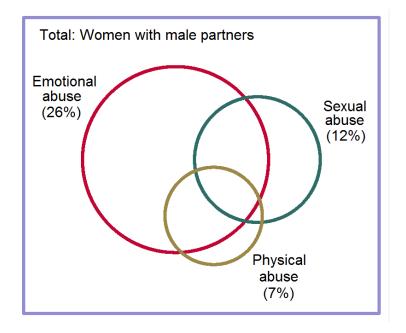
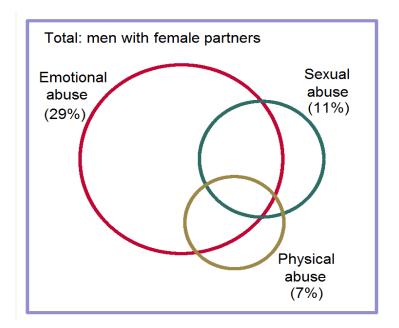
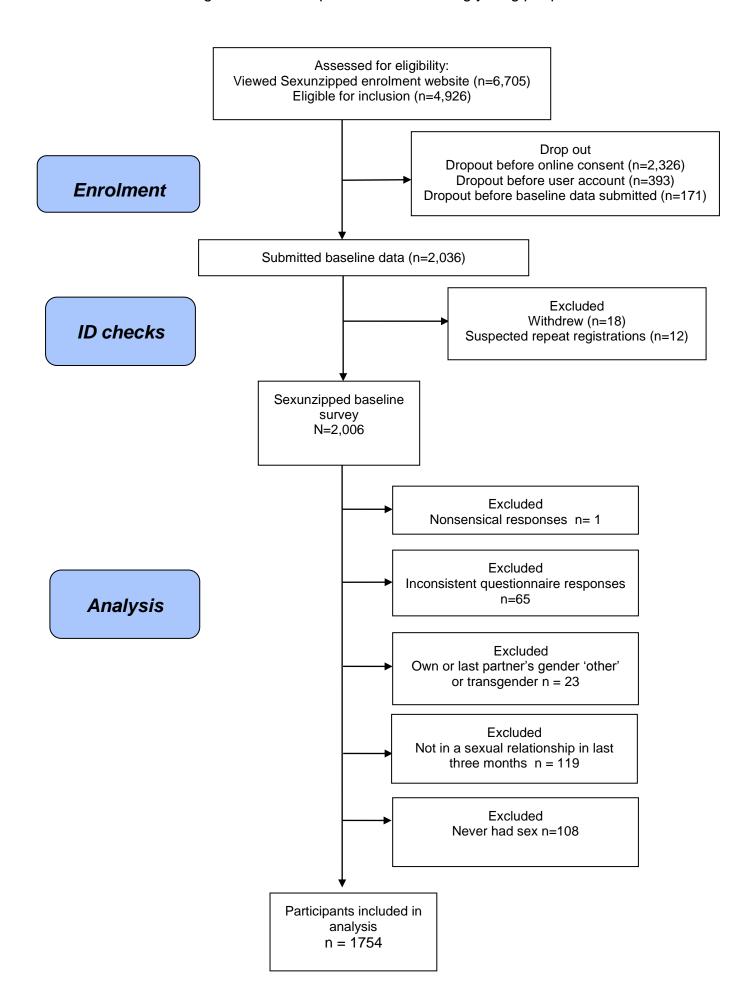


Figure 2. Young men with female partners: type of partner abuse in previous 3 months (n=441)



Consort diagram – Intimate partner abuse among young people



Young people, partner abuse and sexual health: indicators of increased risk

Table 1. Partner abuse by gender and gender of partner/s

		HARK 1	HARK 2	HARK 3	HARK 4			
Gender	Number	Humiliated or	Afraid of a	Forced to have	Kicked, hit,	Positive response	Has a partner told	Has a partner
and	in each	emotionally	partner or ex-	any kind of	slapped or	to one or more	you who you	pressurised you
gender of	group	abused by a	partner in last	sexual activity by	otherwise	HARK questions	could see and	into any form of
partners,		partner or ex- in	3/12?	a partner or ex- in	physically hurt by	%	where you could	sexual activity?
last 3	Total =	last 3 months?		last 3/12?	a partner or ex- in	(95% CI)	go?	
months	1,754	%	%	%	the last 3 months?		%	%
		(95% CI)	(95% CI)	(95% CI)	%		(95% CI)	(95% CI)
					(95% CI)			
F-M	n=1019	14.3	9.4	4.5	7.1	22.8	12.5	9.9
		(12.3 to 16.6)	(7.8 to 11.4)	(3.4 to 6.0)	(5.6 to 8.8)	(20.3 to 25.4)	(10.6 to 14.6)	(8.2 to 11.9)
F-MF	n=70	34.3	22.9	18.6	30.0	48.6	27.1	20.0
		(23.9 to 46.4)	(14.3 to 34.4)	(11.0 to 29.7)	(20.2 to 42.0)	(36.9 to 60.4)	(17.8 to 39.0)	(12.1 to 31.3)
F-F	n=40	15.0	2.5	2.5	7.5	20.0	22.5	0.0
		(6.7 to 30.4)	(0.3 to 17.0)	(0.3 to 17.0)	(2.3 to 21.7)	(10.0 to 36.0)	(11.8 to 38.7)	0.0
M-F	n=441	10.2	4.3	2.9	7.0	17.2	20.9	10.7
		(7.7 to 13.4)	(2.8 to 6.7)	(1.7 to 5.0)	(5.0 to 9.8)	(14.0 to 21.1)	(17.3 to 24.9)	(8.1 to 13.9)
M-FM	n=67	14.9	10.4	13.4	11.9	28.4	37.3	22.4
		(8.1 to 25.9)	(5.0 to 20.7)	(7.0 to 24.2)	(6.0 to 22.4)	(18.7 to 40.6)	(26.4 to 49.7)	(13.8 to 34.2)
M-M	n=117	18.8	12.0	6.0	6.0	26.5	15.5	14.5
		(12.6 to 27.0)	(7.2 to 19.3)	(2.8 to 12.1)	(2.8 to 12.1)	(19.2 to 35.4)	(9.8 to 23.2)	(9.2 to 22.3)

Table 2. Associations with partner abuse (\geq 1 HARK questions) – women with male

partners

partners		050/	1
	Odds	95% Confidence	P
	Ratio	Interval	value
Age (each one year increase)	0.93	0.799 - 1.079	0.33
Ethnicity ('non-white' vs. 'white')	0.56	0.755 - 1.075	0.02
In education	-	+	1
	0.68	0.476 - 0.956	0.03
Not in a relationship	1	0.272 0.700	
In a relationship with one person	0.51 2.05	0.372 - 0.700 0.899 - 4.677	< 0.001
In a relationship with >1 person			0.20
Last partner regular (vs one-off)	0.83	0.541 - 1.268	0.39
Too drunk or high to remember sex in the last 3/12	1.29	0.872 - 1.909	0.20
Any regretted sex in the last 3/12	2.70	1.993 - 3.643	< 0.00
Safer sex communication self-efficacy (1 unit increase in	0.42	0.206 0.507	.0.00
score)	0.43	0.306 - 0.597	< 0.00
Sexual pleasure communication self-efficacy (increase in score)	0.78	0.577 - 1.051	0.10
	0.78	0.698 - 1.169	0.10
Condom use self-efficacy		0.098 - 1.109	0.44
No unprotected vaginal sex in the last 3/12	1	-	
1-5 episodes of unprotected vaginal sex in the last 3/12 >5 episodes of unprotected vaginal sex in the last 3/12	1.42 1.15	0.918 - 2.204 0.770 - 1.721	0.25
	+	0.770 - 1.721	
No unprotected anal sex in the last 3/12	1	-	_
1-5 episodes of unprotected anal sex in the last 3/12	1.68	1.110 - 2.550	0.04
>5 episodes of unprotected anal sex in the last 3/12	1.51	0.685 - 3.346	
Any use of service in the last 3/12	1.24	0.858 - 1.792	0.25
Any STI in the last 3/12	1.63	1.079 - 2.450	0.02
Use of any contraception including condoms	0.84	0.610 - 1.167	0.31
Lacked interest in sex in last 3/12	1.71	1.262 - 2.307	< 0.01
Lacked enjoyment in sex in last 3/12	1.01	0.993 - 1.029	0.25
Felt anxious during sex in last 3/12	1.02	0.991 - 1.053	0.18
Physical pain during sex in last 3/12	1.02	0.987 - 1.045	0.28
No excitement or arousal during sex in last 3/12	1.03	0.998 - 1.053	0.07
Did not orgasm	1.80	1.254 - 2.590	< 0.01
Orgasm too quickly	1.03	0.681 - 1.564	0.88
Uncomfortably dry vagina	1.75	1.285 - 2.374	< 0.01
Number of male partners in last 3/12 (reference category 1)	1.18	1.051 - 1.321	< 0.01
Satisfied with relationships (neither agree nor disagree)	0.81	0.477 - 1.375	0.44
Satisfied with relationships (agree)	0.37	0.247 - 0.546	< 0.01
Satisfied with sex life (neither agree nor disagree)	0.76	0.469 - 1.226	0.26
Satisfied with sex life (agree)	0.54	0.379 - 0.773	< 0.01
Distressed or worried about sex life (neither agree nor			
disagree)	2.47	1.674 - 3.639	< 0.01
Distressed or worried about sex life (agree)	2.69	1.855 - 3.891	< 0.01
Ever talked to partner about sex you like	0.73	0.477 - 1.108	0.14
Ever talked to partner about sex they like	0.86	0.559 - 1.324	0.50
Emotional pleasure at last sex	0.40	0.277 - 0.590	< 0.01
Physical pleasure at last sex	0.51	0.376 - 0.695	< 0.01
Log of deprivation score	0.97	0.785 - 1.190	0.75
Pregnant within the last 3 months	1.85	0.928 - 3.669	0.08
2.20 month of the state of months	1.00	3.720 3.007	0.00

Table 3. Associations with partner abuse (\geq 1 HARK questions) – men with female partners

	Odds	Confidence	
	Ratio	Intervals	P value
Age (each one year increase)	1.03	0.797 - 1.331	0.82
Ethnicity ('non-white' vs. 'white')	2.05	1.114 - 3.771	0.02
In education	0.85	0.476 - 1.506	0.57
Not in a relationship	1		
In a relationship with one person	0.52	0.307 - 0.880	0.06
In a relationship with >1 person	0.58	0.156 - 2.116	0.06
Last partner regular	0.52	0.290 - 0.915	0.02
Too drunk or high to remember sex in the last 3/12	1.52	0.839 - 2.768	0.17
Any regretted sex in the last 3/12	1.90	1.142 - 3.165	0.01
Safer sex communication self-efficacy (1 unit increase			
in score)	0.75	0.440 - 1.279	0.29
Sexual pleasure communication self-efficacy (increase			
in score)	1.07	0.625 - 1.829	0.81
Condom use self-efficacy	0.89	0.588 - 1.347	0.58
No unprotected vaginal sex in the last 3/12	1		
1-5 episodes of unprotected vaginal sex in the last 3/12	1.35	0.654 - 2.797	0.47
>5 episodes of unprotected vaginal sex in the last 3/12	1.52	0.766 - 3.003	0
Any use of service in the last 3/12	1.91	1.142 - 3.183	0.01
Any STI in the last 3/12	2.93	1.418 - 6.063	< 0.01
Use of any contraception including condoms	0.69	0.405 - 1.164	0.16
Lacked interest in sex in last 3/12	1.79	1.049 - 3.050	0.03
Lacked enjoyment in sex in last 3/12	1.01	0.983 - 1.029	0.62
Felt anxious during sex in last 3/12	1.02	1.000 - 1.034	0.05
Physical pain during sex in last 3/12	1.02	0.990 - 1.047	0.21
No excitement or arousal during sex in last 3/12	1.02	0.997 - 1.038	0.10
Did not orgasm	1.51	0.909 - 2.504	0.11
Orgasm too quickly	1.43	0.862 - 2.362	0.17
Trouble getting or keeping an erection	1.00	0.978 - 1.020	0.90
Number of female partners (reference category 1)	1.16	1.015 - 1.331	0.03
Satisfied with relationships (neither agree nor disagree)	0.49	0.205 - 1.174	0.11
Satisfied with relationships (agree)	0.26	0.135 - 0.483	< 0.01
Satisfied with sex life (neither agree nor disagree)	0.83	0.397 - 1.733	0.62
Satisfied with sex life (agree)	0.40	0.220 - 0.717	< 0.01
Distressed or worried about sex life (neither agree nor			
disagree)	2.38	1.225 - 4.623	0.01
Distressed or worried about sex life (agree)	4.56	2.541 - 8.184	< 0.01
Ever talked to partner about sex you like	1.02	0.477 - 2.197	0.95
Ever talked to partner about sex they like	0.77	0.397 - 1.509	0.45
Emotional pleasure at last sex	0.54	0.284 - 1.039	0.06
Physical pleasure at last sex	0.51	0.299 - 0.857	0.01
Log of deprivation score	1.16	0.808 - 1.672	0.42

Partner abuse amongst young people

Supplementary Table. Demographics and sexual health outcomes by gender and gender of partner/s

		F-M	F-MF	FF	M-F	M-FM	M-M
Outcomes		N = 1019	N = 70	N = 40	N = 441	N = 67	N = 117
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
	16 17	27 (2.7) 50 (4.9)	4 (5.7) 4 (5.7)	1 (2.5) 1 (2.5)	15 (3.4) 17 (3.9)	5 (7.5) 2 (3.0)	3 (2.6) 6 (5.1)
Age	18 19 20	365 (35.8) 336 (33.0) 241 (23.7)	27 (38.6) 21 (30.0) 14 (20.0)	11 (27.5) 15 (37.5) 12 (30.0)	130 (29.5) 173 (39.2) 106 (24.0)	16 (23.9) 20 (30.0) 24 35.8)	33 (28.2) 43 (36.8) 32 (27.4)
Ethnicity	'White' 'Not White'	910 (85.1) 152 (14.9)	59 (84.3) 11 (15.7)	34 (85.0) 6 (15.0)	375 (85.0) 66 (15.0)	58 (86.6) 9 (13.4)	104 (88.9) 13 (11.1)
In education	No Yes	202 (20.1) 805 (79.9)	12 (17.4) 57 (82.6)	7 (17.5) 33 (82.5)	100 (22.8) 338 (77.2)	14 (20.9) 53 (79.1)	31 (26.7) 85 (73.3)
Current relationship:	Not in a relationship With 1 person With >1 person	277 (27.2) 717 (70.4) 25 (2.5)	28 (40.0) 33 (47.1) 9 (12.9)	12 (30) 27 (67.5) 1 (2.5)	118 (26.8) 304 (68.9) 19 (4.3)	34 (50.7) 30 (44.8) 3 (4.5)	56 (47.9) 60 (51.2) 1 (0.9)
Last partner:	One-off Regular	128 (12.5) 891 (87.4)	19 (27.1) 51 (72.9)	7 (17.5) 33 (82.5)	81 (18.4) 360 (81.6)	24 (35.8) 43 (64.2)	36 (30.8) 81 (69.2)
Sex when too drunk or high to remember in last 3 months	No Yes	861 (84.8) 154 (15.2)	50 (74.6) 17 (25.4)	32 (80.0) 8 (20.0)	353 (81.1) 82 (18.9)	40 (62.5) 24 (37.5)	88 (77.9) 25 (22.1)
Regretted sex in last 3/12	No Yes	690 (67.7) 329 (32.3)	28 (40.0) 42 (60.0)	32 (80.0) 8 (20.0)	308 (69.8) 133 (30.2)	27 (40.3) 40 (59.7)	58 (49.6) 59 (50.4)
Safer sex communication self-efficacy	Mean score/4 (interquartile range)	3.4 (3.0 to 3.8)	3.2 (2.8 to 3.6)	3.2 (2.9 to 3.7)	3.2 (2.8 to 3.6)	3.0 (2.5 to 3.4)	3.3 (2.8 to 3.6)
Sexual pleasure communication self-efficacy	Mean score/4 (interquartile range)	3.2 (2.8 to 3.6)	3.2 (2.8 to 3.6)	3.6 (3.2 to 3.9)	3.2 (2.8 to 3.6)	3.2 (2.8 to 3.4)	3.3 (2.8 to 3.6)
Condom use self- efficacy	Mean score/4 (interquartile range)	3.5 (3.0 to 4.0)	3.0 (2.5 to 3.5)	3.5 (3.0 to 4.0)	3.5 (3.0 to 4.0)	3.5 (2.5 to 4.0)	3.5 (3.0 to 3.5)
Episodes of vaginal sex without condoms in the last 3 months	0 ≥1	202 (20.0) 810 (80.0)	15 (21.4) 55 (78.6)	11 (84.6) 2 (15.4)	96 (22.0) 341 (78.0)	22 (32.8) 45 (67.2)	N/A

Partner abuse amongst young people

Episodes of anal sex without condoms in the last 3 months	0 ≥1	672 (80.4) 164 (19.6)	38 (69.1) 17 (39.9)	13 (92.9) 1 (7.1)	313 (83.0) 64 (17.0)	42 (67.7) 20 (32.3)	42 (36.2) 74 (63.8)
Any use of sexual health services in last 3 months	No Yes	221 (21.7) 798 (78.3)	16 (22.9) 54 (77.1)	23 (57.5) 17 (42.5)	214 (48.5) 227 (51.5)	26 (38.8) 41 (61.2)	45 (38.5) 72 (61.5)
Any STI in last 3/12	No Yes	893 (87.6) 126 (12.4)	56 (80) 14 (20)	40 (100.0) 0	404 (91.6) 37 (8.4)	53 (79.1) 14 (20.9)	100 (85.5) 17 (14.5)
Using any contraception (including condoms)	No Yes	272 (26.7) 747 (73.3)	33 (47.1) 37 (52.9)	38 (95.0) 2 (5.0)	122 (27.7) 319 (72.3)	32 (47.8) 35 (52.2)	N/A
1.Lacked interest in sex	No Yes N/A	669 (65.7) 343 (33.7) 7 (0.7)	46 (65.7) 23 (32.9) 1 (1.4)	27 (77.5) 13 (32.5)	332 (75.3) 108 (24.5) 1 (0.2)	45 (67.1) 20 (29.9) 2 (3.0)	75 (64.1) 42 (35.9)
2. Lacked enjoyment in sex	No Yes N/A	681 (66.8) 328 (32.2) 10 (1.0)	39 (55.7) 30 (42.9) 1 (1.4)	31 (77.5) 9 (22.5)	336 (76.2) 100 (22.7) 5 (1.1)	43 (64.2) 20 (29.9) 4 (6.0)	82 (70.0) 33 (28.2) 2 (3.4)
3. Felt anxious during sex	No Yes N/A	725 (71.1) 287 (28.2) 7 (0.7)	41 (58.6) 29 (41.4)	28 (70.0) 12 (30.0)	288 (65.3) 146 (33.1) 7 (1.6)	44 (65.7) 21 (31.3) 2 (3.0)	72 (61.5) 41 (35.0) 4 (3.4)
4. Felt physical pain as a result of sex	No Yes N/A	598 (58.7) 416 (40.8) 5 (0.5)	34 (48.6) 35 (50.0) 1 (1.4)	29 (72.5) 11 (27.5)	345 (78.2) 93 (21.0) 3 (0.7)	52 (77.6) 13 (19.4) 2 (3.0)	81 (69.2) 35 (29.9) 1 (0.9)
5. Felt no excitement or arousal	No Yes N/A	754 (74.0) 257 (25.2) 8 (0.8)	43 (61.4) 25 (35.7) 2 (2.9)	34 (85.0) 6 (15.0)	357 (80.9) 79 (17.9) 5 (1.1)	49 (73.1) 16 (23.9) 2 (3.0)	87 (74.4) 29 (24.8) 1 (0.9)
6. Difficulty coming to a climax/orgasm	No Yes N/A	278 (27.6) 730 (72.4) 0	24 (35.3) 44 (64.7)	18 (45.0) 22 (55.0)	204 (46.5) 235 (53.5)	34 (52.3) 31 (47.7)	50 (43.9) 64 (56.1)
7. Orgasm too quickly	No Yes N/A	851 (85.4) 146 (14.6)	51 (77.3) 15 (22.7)	28 (71.8) 11 (28.2)	204 (46.7) 233 (53.3)	26 (39.4) 40 (60.6)	74 (64.9) 40 (35.1)
8. Trouble with a dry vagina	No Yes N/A	707 (69.4) 309 (30.3) 3 (0.3	40 (57.1) 29 (41.4) 1 (1.4)	36 (90.0) 4 (10.0)	N/A	N/A	N/A
9. Trouble getting or keeping an erection	No Yes N/A	N/A	N/A	N/A	289 (65.5) 144 (32.7) 8 (1.8)	44 (65.7) 22 (32.8) 1 (1.5)	88 (75.2) 26 (22.2) 3 (2.6)

Partner abuse amongst young people

	1 .	740 (70.0)	00 (40 0)			0= (=0 0)	10 (11 0)
Number of male	1	746 (73.2)	30 (42.9)			35 (52.2)	48 (41.0)
partners in last 3	2	141 (13.8)	14 (20.0)			13 (19.4)	24 (20.5)
months	3	62 (6.1)	8 (11.4)	N/A	N/A	4 (6.0)	17 (14.5)
months	<u>≥</u> 4	70 (6.9)	18 (25.7)			15 (22.4)	28 (2.9)
Number of female	1		53 (75.7)	30 (75.0)	286 (64.9)	40 (59.7)	
	2		7 (10)	8 (20.0)	76 (17.2)	7 (10.4)	
partners in last 3	3	N/A	3 (4.3)	1 (2.5)	38 (8.6)	6 (9.0)	N/A
months	≥4		5 (10.0)	1 (2.5)	41 (9.4)	14 (21.0)	
	No	242 (23.7)	27 (20 6)	G (1E 0)	101 (22.0)	, ,	40 (44 0)
Satisfied with	Yes (agree or	` '	27 (38.6)	6 (15.0)	101 (22.9)	24 (35.7)	48 (41.0)
relationship/s	strongly agree)	768 (75.4)	42 (60.0)	33 (82.5)	336 (76.2)	43 (64.2)	66 (56.4)
·	N/A	9 (0.9)	1 (1.4)	1 (2.5)	4 (0.9)	,	3 (2.6)
	No	341 (33.5)	20 (41 4)				
Catiatia duvida a su lita	Yes (agree or	` '	29 (41.4)	10 (25.0)	153 (34.7)	28 (41.7)	61 (52.1)
Satisfied with sex life	strongly agree)	677 (66.4)	40 (57.1)	30 (75.0)	288 (65.3)	39 (58.2)	56 (47.9)
	N/A	1 (0.1)	1 (1.4)	,	, ,	,	,
	Yes (agree or	172 (16.9)	26 (37.1)	8 (20.0)	90 (20.4)	25 (27 2)	
Distressed or worried	strongly agree)	` '	` ,	` '	` ,	25 (37.3)	23 (19.7)
about sex life	No	844 (82.8)	43 (61.4)	31 (77.5)	350 (79.4)	40 (59.7)	93 (79.6)
	N/A	3 (0.3)	1 (1.4)	1 (2.5)	1 (0.2)	2 (3.0)	,
Ever talked about sex	No	125 (12.3)	8 (11.4)	4 (10.0)	53 (12.0)	12 (17.9)	21 (18.8)
they liked?	Yes	885 (86.9)	61 (87.1)	36 (90.0)	387 (87.8)	54 (80.6)	96 (80.3)
they liked?	N/A	9 (0.9)	1 (1.4)	36 (90.0)	1 (0.2)	34 (60.6)	1 (0.9)
Ever talked about sex	No	127 (12.5)	9 (12.9)	4 (10.0)	63 (14.3)	12 (17.9)	22 (18.8)
their partner liked?	Yes	881 (86.5)	60 (85.7)	36 (90.0)	376 (85.3)	54 (80.6)	94 (80.3)
their partiler likeu?	N/A	11 (1.1)	1 (1.4)	36 (90.0)	376 (65.3)	34 (60.6)	94 (60.3)
Emotional placeurs of	Mean score/2	2	1.67	2	2	1 5	17
Emotional pleasure at	(interquartile	(1.67 to 2)	1.67	2	2	1.5	1.7
last sex	range)	(=:::::::::::::::::::::::::::::::::::::	(1 to 2)	(1.67 to 2)	(1.33 to 2)	(1.0 to 2.0)	(1.3 to 2.0)
Dhysical placeurs of	Na	207 (20.0)	04 (04 0)	40 (05 0)	444 (05.0)	OF (07.0)	48 (41.4)
Physical pleasure at	No Madanata/alat	297 (29.2)	24 (34.8)	10 (25.0)	111 (25.2)	25 (37.3)	68 (58.6)
last sex	Moderate/a lot	721 (70.8)	45 (65.2)	30 (75.0)	329 (74.8)	42 (62.7)	(- /
	No	969 (95.1)	5 (7.1)	32 (80.0)	415 (94.1)	54 (80.6)	
Pregnancy within the	Yes	38 (3.7)	65 (92.9)	0 (0.0)	10 (2.3)	4 (6.0)	N1/A
last 3 months	Don't know	6 (0.6)	0 (0.0)	1 (2.5)	10 (2.3)	2 (3.0)	N/A
	N/A	6 (0.6)	0 (0.0)	7 (17.5)	6 (1.4)	7 (10.4)	

Sexunzipped baseline outcome questionnaire

Question	Linked questions (skip patterns)
How did you hear about this research?	
Facebook advert Through a friend or relative By email Online (e.g. blog, twitter) From school or college Leaflet or poster Other	
Are you	
 Male Female Female to male transgender Male to female transgender Other (please state) 	
Have you felt sexually attracted	
 Only to females, never to males More often to females, and at least once to a male About equally often to females and to males More often to males, and at least once to a female Only to males, and never to females I have never felt sexually attracted to anyone 	
Which of these is true for you at the moment?	If a) Have you been in a relationship in the past?
a) I am not in a relationship	O Yes O No
 b) I am currently in a relationship with one person c) I am currently in relationships with more than one person 	If yes, how long ago did your relationship end? Less than a week ago 1 to 4 weeks ago One month to 3 months ago More than 3 months ago
	(If b, c or yes to past relationship) Which best
	describes your relationship/s?
	Sexual relationship/sNon-sexual relationship/s
What gender is your partner (or ex-partner)? (If you have more than one partner, please pick the one you are closest to or have been with the longest)	
 Male Female Female to male transgender Male to female transgender Other (please state) 	

Confidence about sex and relationships	
When communicating about sex with a partner, how easy or difficult would it be for you to?	
 Ask if they have ever had a sexually transmitted infection? 	○ Very difficult○ Easy○ Very easy○ Not applicable
2. Discuss contraception (birth control) (e.g. the pill)3. Discuss condom use?	○ Very difficult○ Easy○ Very easy○ Not applicable
Refuse to have sex if they won't use a condom?	○ Very difficult○ Easy○ Very easy○ Not applicable
5. Make the first move with sex	○ Very difficult○ Easy○ Very easy○ Not applicable
6. Tell them that you like a specific sexual activity?	○ Very difficult○ Easy○ Very easy○ Not applicable
7. Tell them you do not want to have sex?8. Tell them if a certain sexual activity makes you	○ Very difficult○ Easy○ Very easy○ Not applicable
uncomfortable?	○ Very difficult○ Easy○ Very easy○ Not applicable
	O Very difficult O Easy O Very easy O Not applicable
How confident are you that you could	
1. Stop to use a condom in the heat of the moment?	 ○ I definitely could ○ I probably could not ○ I definitely could not ○ Not applicable
Put a condom on yourself or a partner without losing the erection?	O I definitely could O I probably could O I probably could not
3. Suggest sex if you want it?	 ○ I definitely could not ○ Not applicable ○ I definitely could ○ I probably could ○ I probably could not ○ I definitely could not ○ Not applicable
4. Tell or show someone how they can give you sexual pleasure?	 ☐ I definitely could ☐ I probably could not ☐ I definitely could not ☐ Not applicable
Have you talked about these things with current (or most recent) partner/s?	
 The kind of sex you like The kind of sex a partner likes 	O Yes O No O Not applicable O Yes O No O Not applicable
Sex and relationship problems	
In the last 3 months, have you been	
 Humiliated or emotionally abused in other ways by a partner or ex-partner? 	○ Yes ○ No ○ Not sure

2.	Afraid of a partner or ex-partner?	O Yes O No O Not sure
3.	Forced to have any kind of sexual activity by a partner or ex-partner?	O Yes O No O Not sure
4.	Kicked, hit, slapped or otherwise physically hurt by a partner or ex-partner?	O Yes O No O Not sure
In the I	ast 3 months, has a partner	
1.	Told you who you could see and where you could go	O Yes O No O Not sure
2.	Pressurised you into any form of sexual activity?	○ Yes ○ No ○ Not sure
	ast 3 months, have any of these been a m for you?	
1.	Lacked interest in having sex	O Yes O No O Not applicable
2.	Lacked enjoyment in sex	O Yes O No O Not applicable
3.	Felt anxious during sex	O Yes O No O Not applicable
4.	Felt physical pain as a results of sex	O Yes O No O Not applicable
5.	Felt no excitement or arousal during sex	O Yes O No O Not applicable
6.	Did not come to a climax (experience an orgasm)	O Yes O No O Not applicable
7.	Came to a climax (experienced an orgasm) more quickly than you would like	O Yes O No O Not applicable
8.	(Women only) had trouble with an uncomfortably dry vagina	O Yes O No O Not applicable
9.	(Men only) had trouble getting or keeping an erection	O Yes O No O Not applicable
(If yes	to any of these)	
, ,	ou avoided sex because of this?	
O Yes	O No O Not applicable	
	ast 3 months, how many times have you had u regretted?	
None 1		
2		
3		
4 5		
6		
7 8		
9 10 or m	nore	

Satisfaction	
Thinking about the past 3 months, how much do you agree or disagree with the following statements?	
I feel satisfied with my relationship/s	O Strongly agree O Agree O Neither agree nor disagree O Disagree
I feel satisfied with my sex life	O Strongly disagree O Not applicable
I feel distressed or worried about my sex life	

The last time you had sex	
When was the last time you had sex with someone (if ever)?	
 Less than a week ago More than a week but less than a month ago 1-3 months ago More than 3 months ago Never 	
What gender was the last person you had sex with?	
 Male Female Transgender (male to female) Transgender (female to male) Other (please state) 	
Was the last person you had sex with	If b, how long have you been having sex with this person?
 ○ a. Somebody you've had sex with only once ○ b. Somebody you've had sex with more than once 	 Less than one week 1 week to 4 weeks 1 month to 6 months 7 months to 1 year More than 1 year
The last time you had sex	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1. How safe and comfortable did you feel?	O Not at all O Moderately O Very safe and comfortable O Not applicable
2. How much did you enjoy the physical feelings?	O Not at all O Moderately O A lot O Not applicable
3. How emotionally close did you feel to the other person?	O Not at all O Moderately O Very close O Not applicable
4. How much did you enjoy the pleasure you gave to the other person?	O Not at all O Moderately O A lot O Not applicable
The last time you had sex, did you have vaginal sex,	(If yes) Was a condom used?
where the penis entered the vagina? O Yes O No O Not applicable	O Yes O No O Don't know O Not applicable
• •	(If yes):
	Was the condom used from start to finish of sex?
	O Yes O No O Don't know O Not applicable

	Did the condom split or fall off?
	O Yes O No O Don't know O
	Not applicable
The last time you had sex, did you have anal sex,	(If yes):
where the penis entered the anus?	Was a condom used?
O Yes O No O Not applicable	O Voc. O No. O Parkharm O No.
	O Yes O No O Don't know O Not applicable
	(If yes): Was the condom used from start to finish of sex?
	O Yes O No O Don't know O Not applicable
	Did the condom split or fall off?
	O Yes O No O Don't know O Not applicable
The last time you had sex, did you or your partner use any form of contraception (birth control)?	(If c, yes) Please tick all contraceptives (birth control) that you used the last time you had sex:
○ a. None for me, don't know about partner	
O b. None for either of us	O The Pill, contraceptive patch, or contraceptive
O c. Yes (skip to list)	vaginal ring
O d. Not applicable	O Condoms (including female condoms) O Emergency contraceptive pill (morning after
	pill)
	O Injection
	O Contraceptive implant
	O Withdrawal O Intrauterine device (coil/IUD/IUS)
	O Diaphragm or cap or spermicide
	O Natural family planning (safe period/rhythm
	method)
	O Don't know name of the contraception O Other (please state)
Are you or a partner trying to get pregnant at the	G other (prease state)
moment?	
O Yes O No O Not applicable	
Have you or a female partner been pregnant in the	
last 3 months?	
O Yes O No	
O Don't know O Not applicable	
(If yes) What happened with the pregnancy?	
O Still pregnant	
O Miscarriage or stillbirth O An abortion	
O A baby	
,	1
More about sex	
In the last 3 months, how many male partners have	
you had sex with?	
10	

1 2 3 4 5 6 7 8 9 10 or more	
In the last 3 months, how many female partners have you had sex with? 0 1 2 3 4 5 6 7 8 9 10 or more	
How many times in the last 3 months have you had vaginal sex without a condom? O None O Once O Twice O 3 times O 4 times O 5 times O 6 times or more O Not applicable	
How many times in the last 3 months have you had anal sex without a condom? O None O Once O Twice O 3 times O 4 times O 5 times O 6 times or more O Not applicable	
Which sexual health services have you used in the last 3 months (tick all that apply) O None O Condom pick-up O Contraception/birth control Emergency contraceptive pills O Pregnancy test O Discussion of abortion choices O Check-up for sexually transmitted infections (e.g. O Chlamydia, Gonorrhoea)	

 Blood tests for sexually transmitted infections 	
(e.g. O HIV, syphilis or Hepatitis)	
O Relationship counselling	
O Sexual assault/abuse counselling	
O Other sexual health services	
Adding up those visite, how many times did you use	
Adding up these visits, how many times did you use a sexual health service in the last 3 months?	
1	
•	
2	
3	
4	
5	
6	
7	
8	
9	
10 or more Have you had Chlamydia in the last 3 months?	
have you had Chiamydia in the last 3 months?	
O Yes O No O Don't know	
Have you had antibiotic treatment for Chlamydia in	
the last 3 months?	
O Yes O No O Don't know	
In the last 3 months, have you had any of the	
following (tick all that apply)?	
rene 9 (new em mien off h./)	
O None	
O Warts	
O Herpes	
O Gonorrhoea	
O Pubic lice	
O Trichomonas (TV)	
O Syphilis	
O HIV	
O Hepatitis	
(WOMEN ONLY) Pelvic infection (PID)	
O (WOMEN ONLY) Vaginal thrush (Candida,	
Yeast infection)	
O Can't remember the name	
O Other (please write in name)	
In the last 3 months, how many times have you	
been too drunk or high to remember whether you	
had sex?	
Hau Sex:	
O Never	
O Once	
O Twice	
O 3 times	
O 4 times	
O 5 times	
O 6 or more times	
9 of more times	
How do you rate these sexual activities?	
The do you rate those soudin delivities:	
1. Sex by phone or online	
Touching with clothes on	O Would like to try OWould not like to try
Touching with clothes off	O Tried and would not do again
Masturbating myself	O Tried and would do again

6. I 7. (Masturbating someone else Being masturbated by someone else Giving someone oral sex Oral sex done to me	
2. 3. 4. 7. 5. 7. 6. 7.	Vaginal sex (penis-vagina) Vaginal sex (with fingers or hand) Vaginal sex (with sex toys) Anal sex (rimming) Anal sex (being rimmed) Anal sex (penis-anus) Anal sex (with sex toys)	O Would like to try OWould not like to try Tried and would not do again Tried and would do again

In the	future	
In the r	near future, do you think you will	
1.	Use a condom if you have vaginal sex with a new partner?	O Definitely not OProbably not O Maybe-maybe not O Probably O Definitely O Not applicable
2.	Use a condom if you have anal sex with a new partner?	O Definitely not O Probably not O Maybe- maybe not O Probably O Definitely O Not applicable
3.	Have tests for sexually transmitted infections if you have a new partner?	O Definitely not O Probably not O Maybe- maybe not O Probably O Definitely O Not applicable
4.	Make sure that new partner/s have tests for sexually transmitted infections?	O Definitely not O Probably not O Maybe- maybe not O Probably O Definitely O Not applicable
5.	Make sure that you (or a partner) are using contraception (e.g. The pill)?	O Definitely not O Probably not O Maybe- maybe not O Probably O Definitely O Not applicable
6.	Discuss sexual enjoyment with partner(s)?	O Definitely not O Probably not O Maybe- maybe not O Probably O Definitely O Not applicable

True or false?	
Whether or not I get a sexually transmitted infection is just luck.	○ True○ False○ Unsure of answer
2. I would definitely know if I had Chlamydia, without needing a test	○ True○ False○ Unsure of answer
You can easily tell who is likely to have Chlamydia	○ True○ False○ Unsure of answer
True or false?	
Baby oil or Vaseline is a good lubricant to use on a condom	O True O False O Don't know
With a condom on, the man should wait until the penis is soft before withdrawing	O True O False O Don't know

	-
after sex	
True or false?	
A woman's clitoris is right inside the vagina	O True O False O Don't know
Washing the vagina after penetrative sex (penis-vagina) will help to prevent pregnancy	O True O False O Don't know
Imagine that a 17 year old girl has had sex with her boyfriend about 10 times without condoms or contraception and didn't get pregnant	
This probably means she can't get pregnant	O True O False O Don't know
This probably means that he can't get her pregnant	○ True ○ False ○ Don't know
Time to confess	
For this research to be accurate, we need to be sure that only young people have completed the survey.	If no:
Are you really between 16 and 20 years old?	'Thank you for your interest in our survey, if you
O Yes O No	would like to know more about the research, please contact XXX, xxxx@ucl.ac.uk'
About you	
These questions are to make sure that we've reached a mix of different young people in this survey.	
What is your date of birth?	
(Day)(Month)(Year)	
Are you	
O At school	
O At sixth form college	
,	
At college or universityIn training	
O Working	
O Unemployed	
O Long-term sick or disabled O Other (please state)	
Other (piedae state)	
(If you can choose more than one, please choose the option that best describes you)	
What is your cultural background?	
O White British	
O White Irish	
O Other White	
O Black British	
O Black Caribbean	
O Black African	

O Other Black	
O Asian British	
O Indian	
O Pakistani	
O Bangladeshi	
O Chinese	
O Other Asian	
Mixed cultural background	
O Other cultural background	
Prefer not to say	
If other please state	
Who do you live with most of the time?	
(tick all that apply):	
V	
 a. With parents or step parents 	
O b. With other relatives	
O c. With friends	
O d. With partner	
O d. On your own	
O e. In care or foster care	
O g. With your children (or partner's	
children)	
Thinking about the people that you live with, are	
they	
(tick all that apply):	
 At school, college or university 	
O In training	
O Working	
O Unemployed	
O Long-term sick or disabled	
O Not applicable	
O Other (please state)	
Surior (piodos stato)	
Is there anything else that you'd like to add?	
Any comments about the answers that you gave,	or about this online survey?

Thank you for your help!