

Investigating intimate physical contact between people from different households during the COVID-19 pandemic: findings from a large, quasi-representative survey (Natsal-COVID)

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Introduction

Physical distancing as a non-pharmaceutical intervention (NPI) to prevent SARS-CoV-2 transmission aims to reduce interactions between people, especially from different households.

Intimate contact may expand transmission networks by connecting households and quantifying this could inform mathematical models.

We explored whether sexual intimacy needs impacted on adherence with physical distancing in Britain following the initial announcement of national lockdown on 23 March 2020.

Methods

We undertook the Natsal-COVID web-panel survey between 29 July-10 August 2020. Quota-based sampling and weighting were used to obtain a quasi-representative sample of the British population.

We estimated **intimate physical contact outside of the household (IPCOH)** with a romantic/sexual partner in the four weeks prior to interview, described the type of contact, identified demographic and behavioural factors associated with IPCOH and present age-adjusted odds ratios (aORs).

Ethical approval was obtained from University of Glasgow (ref 20019174) and LSHTM (ref 22565) Research Ethics committees.

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Results

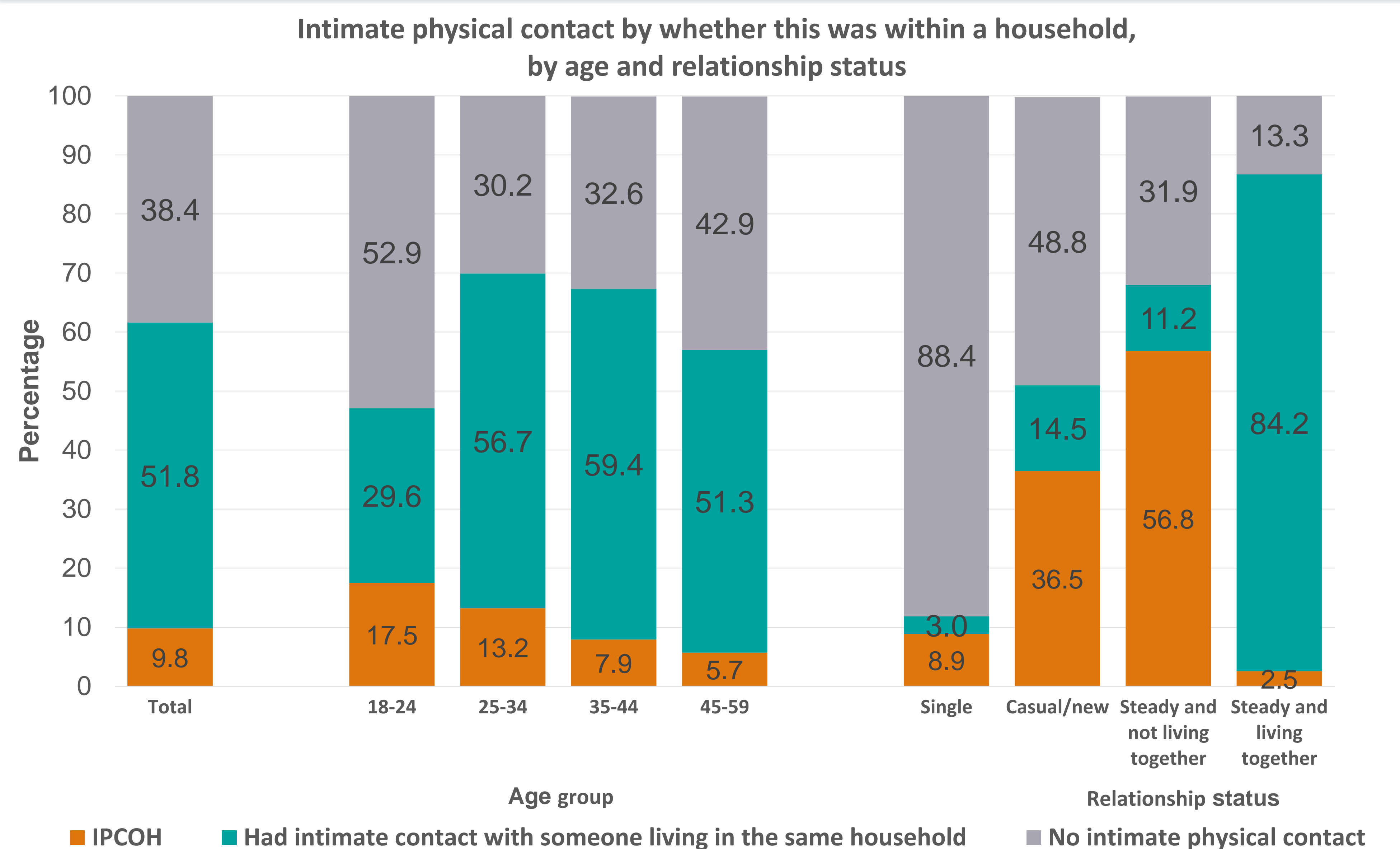
Of the 6,654 participants aged 18-59 years, 9.9% (95%CI:9.1-10.6%) reported IPCOH. Of these, 86.1% reported oral/anal/vaginal sex or genital contact, while the remainder reported kissing (10.4%) or only holding hands/hugging/cuddling (3.4%).

IPCOH varied by age, gender, sexual identity and relationship status (Table/ Figure) and was higher in those reporting other risk behaviours.

Table 1: Factors associated with IPCOH

Category	% of sample	% reporting IPCOH	aOR (95% CI)	n (unwt, wt)
All participants	100	9.9		6654, 6654
Age group (crude OR)			p<0.001	
18-24 years	13.5	17.7	3.51(2.74-4.50)	1046, 895.9
25-34	26.4	13.2	2.47(1.96-3.11)	1911, 1753
35-44	24.0	8.0	1.41(1.08-1.84)	1465, 1595
45-59	36.2	5.8	1	2232, 2410
Gender			p=0.0088	
Men	49.8	10.9	1	3187, 3310
Women	49.9	8.8	0.8 (0.67-0.94)	3443, 3320
Sexual Identity			p<0.001	
Heterosexual	96	9.6	1	5762, 6291
Gay or Lesbian	1.8	19.5	2.50 (1.82-3.45)	326, 118.3
Bisexual	1.4	16.9	1.52 (1.12-2.05)	393, 92.6
Other	0.8	14.9	1.28 (0.58-2.81)	74, 51.4
Current Relationship Status			p<0.001	
Single	29.4	8.9	1	1950, 1947
Casual/new	4.9	36.5	6.09 (4.53-8.19)	341, 321.4
Steady, not living together	7.2	56.3	12.9 (10.0-16.7)	517, 474.5
Steady and living together	58.6	2.5	0.29 (0.22-0.39)	3827, 3889
Number of sexual partners in the past year			p<0.001	
0	30.9	2.12	0.18 (0.13-0.26)	1663, 1721
1	59.0	10.3	1	3294, 3288
2	5.5	34.4	3.94 (2.95-5.27)	336, 308
3+	4.7	43.2	5.60 (4.19-7.46)	345, 261.2
New condomless sexual partners in the past year			p<0.001	
0	87.9	7.6	1	4863, 4861
1+	12.1	33.3	5.03 (4.07-6.21)	724, 671.7
Days drinking alcohol in past week			p<0.001	
0	37.2	5.8	1	2407, 2474
1-2	36.3	11.9	2.16 (1.74-2.68)	2466, 2417
3-4	16.6	12.4	2.32 (1.79-3.01)	1118, 1106
5-7	9.9	13.2	3.00 (2.21-4.06)	663, 657.3

Figure 1



Discussion

10% of participants reported IPCOH in the four weeks prior to interview, while the UK was still under some restrictions, with the majority having sexual contact. This was higher in those in steady non-cohabiting relationships and was associated with other risk behaviours. Higher proportions in younger people may reflect household structure.

On the other hand, 90% of people did not report IPCOH, including nearly half of those in a steady non-cohabiting relationship, although there may be social desirability bias. This suggests overall high adherence to guidelines and that IPCOH is not a large additional contributor to transmission risk on a population level.

Public health messaging needs to recognise the importance of intimate physical contact in people's decision-making and adherence to control measures, and the heterogeneity of people's circumstances.