



Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Fang, W;Coombe, J;Hocking, JS;Bittleston, H

Title:

Are COVID-19 lockdowns associated with a change in sexual desire? Results from an online survey of Australian women

Date:

2023-01-01

Citation:

Fang, W., Coombe, J., Hocking, J. S. & Bittleston, H. (2023). Are COVID-19 lockdowns associated with a change in sexual desire? Results from an online survey of Australian women. *Women and Health*, 63 (7), pp.531-538. <https://doi.org/10.1080/03630242.2023.2237608>.

Persistent Link:

<https://hdl.handle.net/11343/337590>

License:

[CC BY](#)

Included in the print edition
Volume 63, Number 7, 2023ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/wwah20>

Are COVID-19 lockdowns associated with a change in sexual desire? Results from an online survey of Australian women

Wen Fang, Jacqueline Coombe, Jane S. Hocking & Helen Bittleston

To cite this article: Wen Fang, Jacqueline Coombe, Jane S. Hocking & Helen Bittleston (2023) Are COVID-19 lockdowns associated with a change in sexual desire? Results from an online survey of Australian women, *Women & Health*, 63:7, 531-538, DOI: [10.1080/03630242.2023.2237608](https://doi.org/10.1080/03630242.2023.2237608)

To link to this article: <https://doi.org/10.1080/03630242.2023.2237608>



© 2023 The Author(s). Published with license by Taylor & Francis Group, LLC.



Published online: 19 Jul 2023.



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



Article views: 60






View related articles [↗](#)



View Crossmark data [↗](#)

Are COVID-19 lockdowns associated with a change in sexual desire? Results from an online survey of Australian women

Wen Fang MD, Jacqueline Coombe PhD , Jane S. Hocking PhD ,
and Helen Bittleston MPH 

Melbourne School of Population and Global Health, University of Melbourne, Carlton, Victoria, Australia

ABSTRACT

In early 2020, the Australian government implemented lockdown restrictions to prevent the spread of COVID-19. Our study aims to investigate the impact of lockdowns on sexual desire and enjoyment of sex among Australian women. We conducted an online survey in August 2020 when Victoria was in strict lockdown, but all other states/territories had minimal restrictions. Here, we report on responses from female participants aged ≥ 18 years. Respondents were asked whether COVID-19 had impacted their desire and/or enjoyment of sex (yes/no). Those who responded “yes” were asked to elaborate in a free-text question. Factors associated with desire were investigated using the chi-square test. Conventional content analysis was used to explore free-text responses. Of the 622 participants, 44.1% reported COVID-19 related impacts on their sexual desire. Women living in Victoria, who were not heterosexual, and whose employment was negatively affected by lockdown were all more likely to report an impact on their sexual desire. Free-text comments revealed that mental health, living arrangements, and a reduced ability to meet with sexual partners were key reasons behind these impacts. The COVID-19 pandemic and lockdown measures clearly impacted the desire and enjoyment of sex for many women, important factors of people’s relationships, health, and wellbeing.

ARTICLE HISTORY

Received 21 June 2022
Revised 13 June 2023
Accepted 11 July 2023

KEYWORDS

COVID-19; qualitative research; sexual desire; sexual health; women

Introduction

The Australian government introduced a series of measures to reduce the spread of COVID-19 in March 2020, including a nation-wide lockdown from April to May 2020. During this first lockdown, all non-essential services were closed, and people could only leave their homes to shop for essential goods, provide or receive care, exercise, and work or study (if not possible to do so from home). As COVID-19 case numbers decreased, restrictions were eased across the country. However, a second wave of infections emerged in Victoria (the second largest state in Australia), resulting in a second lockdown starting in July 2020 that lasted almost 4 months. The Victorian Stage 4 lockdown included all the restrictions from the first lockdown, as well as restrictions on how far individuals could travel from their homes and a curfew across Melbourne, the capital city of Victoria (Department of Health and Human Services 2020).

Limitations on individual freedoms and social interaction can have a significant adverse impact on individuals. For example, research has shown an impact on mental health, including an increased level of stressful emotional responses such as anxiety, panic, and depression, as well as a general decline in positive feelings (Brooks et al. 2020). Sexual and romantic relationships have also been shown to be impacted (Coombe et al. 2021; Panzeri et al. 2020). A secure and positive intimate relationship can be protective for

CONTACT Helen Bittleston  helen.bittleston@unimelb.edu.au  Melbourne School of Population and Global Health, University of Melbourne, Level 3, 207 Bouverie Street, Carlton, VIC 3053, Australia

© 2023 The Author(s). Published with license by Taylor & Francis Group, LLC.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

both mental and physical health during periods of stress (Pietromonaco and Collins 2017). Research has shown that sexual activity is an important aspect to many people in romantic relationships (Collibee and Furman 2016) and it is likely that those changes to sexual activity during lockdowns could have impacted intimate relationships.

Several studies from across the globe have investigated how desire was impacted by the COVID-19 pandemic, with changes to people's sexual activity, desire, intimacy, and sexual fantasies identified in research from the UK, Germany, and China (Li et al. 2020; Schröder et al. 2021; Wignall et al. 2021). Furthermore, Italian women in cohabiting relationships who reported a decrease in desire related this to worry, lack of privacy and stress (Panzeri et al. 2020).

In general, studies have found some impact of COVID-19 on sexual desire among people in different age groups. However, there has been little research that has focused specifically on the impact of COVID-19 on the sexual desire of Australian women. Using data from the *Sexual and Reproductive Health During COVID-19* repeat, cross-sectional online survey conducted in Australia, we had the opportunity to examine the impact of COVID-19 and its associated restrictions on the sexual desire and enjoyment of sex in women living in Australia. We considered whether changes to desire were moderated by factors such as age, employment status impacted by COVID-19, sexual orientation, and pregnancy intention. This mixed-methods study was conducted in the first year of the COVID-19 pandemic, during a time of great uncertainty, and provides important insight into the impact of lockdowns on the wellbeing of Australian women during this unique period of time.

Methods

This study involved analysis of data from the third iteration of the *Sexual and Reproductive Health During COVID-19* survey, which was administered online using Qualtrics survey software between 13th August and 31st August 2020 (Qualtrics, Provo, UT, USA). More details about the survey have been reported elsewhere (Coombe et al. 2021). Briefly, participants were recruited via paid social media advertising and researcher networks. Individuals were eligible to participate if they were aged 18 years or over and living in Australia. Participants clicked on a link in the survey advertisement which directed them to the survey. Consent was required prior to starting the survey. Only the responses from female participants were included in this analysis. For the larger study, we had aimed for (and achieved) a sample size of >800 (Coombe et al. 2021). Since this was a subgroup analysis, no formal sample size calculations were undertaken. The study was approved by the University of Melbourne Human Research Ethics Committee (ID: 2056693).

Data collection

A question about how sexual desire and enjoyment of sex had changed due to COVID-19 was included within the survey (*"Has COVID-19 (coronavirus) had an impact on your desire and/or enjoyment of sex? If yes, please tell us about it below."*). Participants could respond yes or "no" to this question. Participants who responded "yes" were then able to include a free-text response, elaborating further on this impact in their own words.

Participants were also asked about their demographic characteristics. For the purposes of analysis, demographics were categorized in the following way: age (18–24/25–29/30+ years), sexuality (heterosexual/lesbian, gay, bisexual [LGB]+, including women who selected one or more of the following options: bisexual, queer, pansexual, gay/lesbian, heteroflexible. Asexual women who did not also select another sexuality option were excluded from the quantitative analysis), state/territory (Victoria/all other states), relationship status (in a relationship, cohabiting/in a relationship, living apart/not in a relationship), education (university education/no university education), COVID-19 impact on employment (yes/no. People who said they had reduced income due to COVID-19 were stood down due to COVID-19, had to close their business due to COVID-19 or needed to access federal

financial support (i.e. Jobkeeper or Jobseeker payments) were considered to have had their employment impacted).

Furthermore, participants were asked about their sexual activity in the past 4 weeks (less sex than 2019/more sex than 2019/same amount of sex as 2019), amount of masturbation within the past 4 weeks (less masturbation than 2019/more masturbation than 2019/same amount of masturbation as 2019), and pregnancy intentions (no plans for pregnancy/plans for pregnancy).

Data analysis

All data were imported into Stata 16.0 (StataCorp LLC, College Station, TX, USA) and reviewed by the authors prior to analysis. Descriptive statistics were used to describe demographic features, sexual activity, and the impact of COVID-19 on sexual desire and pregnancy intentions. Chi-square tests were used to investigate the association between different characteristics and changes to sexual desire and/or enjoyment of sex.

Free-text comments were uploaded to NVivo 12 qualitative analysis software (Lumivero 2017) and analyzed using conventional content analysis (Hsieh and Shannon 2005). After reading and re-reading through the survey responses, the first author initially coded all responses. Following this initial coding, the first author examined all data within each code, combining some codes and splitting others into sub-categories. Illustrative quotes are included in this paper. All quotes are presented with the participant's age, employment status, sexuality, and relationship status.

Results

Demographics

A total of 791 women consented to participate, of whom 735 (93.4%) answered all relevant demographic questions, 622 (78.6%) answered questions related to sexual practices and desire and 571 (72.2%) answered pregnancy intention questions (Table 1). Key characteristics of the survey participants are presented in Table 1. Briefly, most of the participants were young (52.8% aged 18–24 years), lived in the state of Victoria (56.0%), and were university educated (66.6%). One-third were LGB+ (33.0%) and were in cohabiting relationships (33.0%). Overall, 44.1% (274/622) of women reported that COVID-19 had impacted their sexual desire/enjoyment of sex. Among these 274 women, 240 (87.6%) provided a free-text response elaborating on how and why their desire had changed.

Quantitative results

Demographic characteristics and sexual desire

Women who were LGB+, who lived in Victoria (the only state/territory in Australia that had strict COVID-19 restrictions at the time of the survey), who reported that COVID-19 had impacted their employment, and who were not in a relationship were more likely to report that COVID-19 had impacted their sexual desire compared with heterosexual women, women from all other states/territories, women who had not had their employment affected by COVID-19, and women in a relationship, respectively (Table 1). We found no association between age, education, and pregnancy intentions and a COVID-19 related impact on sexual desire.

Sexual activity and sexual desire

Several sexual activity variables were associated with a change in sexual desire. Women reporting less sex in the past 4 weeks compared with 2019 and more or less masturbation than in 2019 were more

Table 1. Sociodemographic characteristics, sexual activities, & pregnancy intentions of survey participants, and their associations with sexual desire change.

Characteristic	Sample composition		Participants reporting a change to sexual desire and/or enjoyment of sex		
	n/N	%	n/N	%	<i>p</i> *
Overall	-	-	274/622	44.1	-
Age group (years)					
18–24	415/786	52.8	144/317	45.4	.795
25–29	187/786	23.8	64/152	42.1	
30+	184/786	23.4	66/149	44.3	
Sexuality					
Heterosexual	529/790	67.0	163/415	39.3	.001
LGB+ [†]	261/790	33.0	111/207	53.6	
<i>Gay or lesbian</i>	24/790	3.0			
<i>Bisexual</i>	168/790	21.2			
<i>Pansexual</i>	49/790	6.2			
<i>Queer</i>	46/790	5.8			
<i>Heteroflexible</i>	32/790	4.1			
State					
Victoria	434/775	56.0	173/344	50.3	.001
All other states	341/775	44.0	98/269	36.4	
Relationship status					
In a relationship, cohabiting	245/735	33.3	95/215	44.2	.037
In a relationship, living apart	188/735	25.6	58/160	36.3	
Not in a relationship	302/735	41.1	121/246	49.2	
Education					
University education	522/784	66.6	189/420	45.0	.492
No University education	262/784	33.4	85/202	42.1	
COVID-19 impact on employment					
No	602/783	76.9	193/473	40.8	.004
Yes	181/783	23.1	81/149	54.4	
Sexual activity – past four weeks					
Less sex than 2019	320/660	48.5	178/314	56.7	<.001
More sex than 2019	152/660	53.0	50/152	32.9	
Same amount of sex as 2019	188/660	28.5	39/145	26.9	
Masturbation – past four weeks					
Less masturbation than 2019	103/604	17.1	56/100	56.0	<.001
More masturbation than 2019	165/604	27.3	87/151	57.6	
Same amount of masturbation as 2019	336/604	55.6	108/311	34.7	
Pregnancy intentions					
Plans for pregnancy	515/564	91.3	219/481	45.5	.911
No plans for pregnancy	49/564	8.7	21/47	44.7	

**p* value calculated using Chi Square test.

N = number of respondents who answered the question; denominator varies because of missing data.

[†]LGB+ = Lesbian, Gay, Bisexual+, including pansexual, heteroflexible, and/or queer participants. Participants were able to select multiple sexuality options, and further breakdown of the sexuality options chosen by participants are included beneath the overarching categories. Asexual women who did not also select another sexuality option were excluded from quantitative analyses due to the small number (*n* = 2).

likely to report a COVID-19-related change to their sexual desire compared with women reporting the same amount of sex and masturbation (Table 1).

Qualitative results

During the analysis of the free-text comments, two overarching categories were identified. Firstly, how desire had changed, and secondly, reasons for a change in desire. The two categories are presented below with sub-themes and illustrative quotes. Quotes are accompanied by age, sexuality, relationship status, and employment status.

How desire has changed

Most commonly, respondents said that COVID-19 had caused their level of desire to decrease.

“I am not interested in having sex with anyone because of COVID” 22 years, asexual, not in a relationship, employment impacted by COVID-19

“Stress of COVID and [losing] job for a while, lost my desire for sex.” 20 years, heterosexual, in a relationship, employment not impacted by COVID-19

However, this was not the case for everyone, and many respondents said that their desire had increased because of COVID-19.

“It has made me realize how important sex and physical intimacy is to my wellbeing. It has increased desire for sex” 30 years, heterosexual, in a relationship, employment not impacted by COVID-19

“I think about sex more, masturbate more, and possibly am finding new ways to think about desire and my own pleasure.” 51 years, heterosexual, in a long-distance relationship, employment not impacted by COVID-19.

Several respondents did not explicitly state whether their desire had increased or decreased, but instead gave only a reason for their change in desire.

Reasons for changes in desire

Mental health impacting desire. Changes to sexual desire and enjoyment of sex were often related to mental strain such as stress, depression, or low mood. Some respondents reported that the mental strain was related to high stress, financial concerns, or increased workload. Generally, these individuals reported a decrease in their level of desire, although not all explicitly stated whether their desire had increased or decreased.

“Low mood, mental strain, less engagement with the outside world impacts on arousal and desire to engage in sexual activity” 26 years, heterosexual, in a relationship, employment not impacted by COVID-19.

“Due to having no income for 6 months and can’t see having any income in the future . . . Stress levels are really impacting my life atm [at the moment]” 60 years, heterosexual, in a relationship, employment not impacted by COVID-19

“Mentally, not stimulated. Due to working from home, I am working longer hours. By the time I finish work, I’m too exhausted.” 22 years, heterosexual, in a relationship, employment not impacted by COVID-19

However, some respondents reported reduced stress and workload during lockdown, which increased their desire and/or enjoyment of sex.

“Enjoying sex more at the moment, I think because I don’t have as many things on/occupying my mind, I feel more relaxed” 21 years, heterosexual, in a relationship, employment not impacted by COVID-19

Reduced ability to meet partners due to restrictions impacting desire. Some respondents had less opportunity to meet partners due to COVID-19. For some, this lack of human connection or contact increased their level of desire.

“The lack of human contact for months made me crave touch. Definitely hornier than I was last year.” 35 years, bisexual, in a relationship, employment not impacted by COVID-19

While for others this decreased social engagement reduced their level of desire. Some stated that they wanted to avoid catching or spreading COVID-19.

“Don’t want to risk going out with unfamiliar person for random hookups (don’t want to catch/spread covid)” 21 years, heterosexual, not in a relationship, employment impacted by COVID-19

“Inability to go and meet sexual partners. Also, hesitation to engage in sexual activity with people due to infection risk.” 25 years, heterosexual, not in a relationship, employment impacted by COVID-19

Living arrangements impacting desire. Some respondents mentioned that a decrease in sexual desire was related to their living situation, such as a lack of privacy or other challenging living arrangements.

“Wanting more space from my partner due to us both being home all the time and basically spending all day less than 3 m [meters] apart.” 27 years, heterosexual, in a relationship, employment impacted by COVID-19

Others reported that spending more time at home had led to an increase in desire, due to spending more time with partners, or having more available time. A small number of respondents reported that their desire for solitary sex had increased, and they were more focused on self-pleasure.

“I’m so bored and have nothing to do so sex is way more appealing than it’s ever been” 22 years, bisexual, in a relationship, employment impacted by COVID-19

“Both generally enjoying and wanting sex more, maybe due to spending more time together and relationship improving.” 20 years, lesbian, in a relationship, employment not impacted by COVID-19

Discussion

Findings presented here demonstrate that during the first year of the COVID-19 pandemic, a high proportion of our survey respondents (44.1%) reported changes to their sexual desire and enjoyment of sex. These changes were associated with some sociodemographic characteristics, including sexuality, relationship status, and employment. Participants reported both increases and decreases in their level of desire and enjoyment of sex in free-text comments, relating their changes in desire to COVID-19-related impacts on mental health, ability to meet sexual partners, and living arrangements. In our study, not all Australian states were in lockdown during the time of our survey; only the state of Victoria was in strict lockdown. More Victorians reported a change to their desire and enjoyment of sex than non-Victorians, highlighting the impact of extended and ongoing lockdowns on sexual health and wellbeing of women.

A study from China (Li et al. 2020) reported a similar trend, finding that less than half of participants reported decreased sexual desire, although our findings are not directly comparable to this study as we report on *any* change to sexual desire. In addition, we reported only on the desire and enjoyment of sex in women, and findings from a UK study of young adults suggest that women were more likely than men to have experienced a significant decrease in their sexual desire as a result of the COVID-19 pandemic (Wignall et al. 2021).

Some sociodemographic characteristics were found to be associated with a change in desire, specifically sexuality, relationship status, and employment status. Regarding the association with current employment status, being negatively impacted by COVID-19 might be an indication of unstable financial status, impacting a person’s sexual wellbeing and health. In relation to relationship status, a higher proportion of single women reported changed sexual desire compared with people in a relationship. Findings from an earlier iteration of this survey found that single people were more likely to be having less sex, which is likely to have impacted their desire and enjoyment of sex (Coombe et al. 2021). We also examined the relationship between the frequency of sexual activities and changes in desire. We found that those reporting changes to the amount of sex, including masturbation, were more likely to report a change in desire and enjoyment of sex. Mental health, an inability to meet sexual partners, and living arrangements were all provided by respondents in our free-text comments as reasons for a change to their level of desire and/or enjoyment of sex. An Italian study of cohabiting couples during lockdown reported similar reasons for decreases in sexual desire, including worry, stress, and lack of privacy (Panzeri et al. 2020). The main reason given for increased sexual desire was to pass the time during lockdowns. Findings from a Turkish study similarly reported that more time spent at home could be a potential reason for increased sexual desire (Yuksel and Ozgor 2020). Findings from our qualitative analysis were similar; increased availability of partners heightened some respondents’ level of desire and enjoyment of sex.

Our findings should be interpreted within their limitations. Namely, we used convenience sampling to recruit participants, and our sample was largely homogenous with most women aged <30 years, living in the state of Victoria, with tertiary education levels. Additionally, we had an over-representation of LGB+ women. Our findings may not therefore be generalizable to all Australian women, and in particular we acknowledge that we were unable to explore the impact of COVID-19 on the desire of mid-life and older women. Women of late reproductive, perimenopausal, and menopausal age experience changes to their desire and enjoyment of sex due to many factors, including hormonal change (Davis and Jane 2011), and it is unlikely our findings will be generalizable to them. Furthermore, as the survey was administered online and in English only, it is likely that we have not sufficiently captured the experiences of culturally and linguistically diverse women, and possibly women living in areas of low socioeconomic advantage.

A further limitation of our study is that we were unable to explore some psychosocial factors and their relationship with desire and enjoyment of sex due to a lack of relevant questions within the survey. In particular, we note that rates of intimate partner violence may have increased during the pandemic (McCrary and Sanga 2021), and we were unable to investigate this factor within this study. Other limitations include recall bias, and missing data for several variables.

Finally, due to the wording of the survey questions, although we were able to explore overall impact on sexual desire and enjoyment of sex, we were unable to report the proportion of participants whose desire increased or decreased as a result of COVID-19. However, responses to our free-text follow-up question provided us with insight into how and why sexual desire and enjoyment of sex had been impacted by COVID-19. A strength of our study is that it was conducted when one state (Victoria) was in lockdown, while all other states/territories were not. This allowed us to compare changes to desire for respondents experiencing lockdown and respondents not experiencing lockdown, providing further insight into the impact of lockdowns on desire and enjoyment of sex.

The COVID-19 pandemic and resulting lockdown measures clearly impacted the enjoyment of sex and desire for many women. Enjoyment of sex and desire are significant aspects of human intimacy and relationships and an important consideration when exploring the impact of COVID-19 on people's health and wellbeing.

Acknowledgments

The authors wish to thank the people who took the time to participate in our survey and shared their experiences with us.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

JSH is supported by a National Health and Medical Research Council Fellowship [1136117].

ORCID

Jacqueline Coombe PhD  <http://orcid.org/0000-0002-9520-5724>

Jane S. Hocking PhD  <http://orcid.org/0000-0001-9329-8501>

Helen Bittleston MPH  <http://orcid.org/0000-0002-5768-3223>

Data availability statement

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

References

- Brooks, S. K., R. K. Webster, L. E. Smith, L. Woodland, S. Wessely, N. Greenberg, and G. J. Rubin. 2020. The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *Lancet (London, England)* 395 (10227):912–20. doi:10.1016/s0140-6736(20)30460-8.
- Collibee, C., and W. Furman. 2016. The relationship context for sexual activity and its associations with romantic cognitions among emerging adults. *Emerging Adulthood* 4 (2):71–81. doi:10.1177/2167696815604529.
- Coombe, J., F. Y. S. Kong, H. Bittleston, H. Williams, J. Tomnay, A. Vaisey, S. Malta, J. L. Goller, M. Temple-Smith, L. Bourchier et al. 2021. Love during lockdown: Findings from an online survey examining the impact of COVID-19 on the sexual health of people living in Australia. *Sexually Transmitted Infections*. 97 (5):357–62. doi:10.1136/sextrans-2020-054688.
- Davis, S. R., and F. Jane. 2011. Sex and perimenopause. *Australian Family Physician* 40 (5):274–8.
- Department of Health and Human Services. 2020. Premier's statement on changes to Melbourne's restrictions. Last Modified August 3, 2020. Accessed June 17, 2022. <https://www.dhhs.vic.gov.au/updates/coronavirus-covid-19/premiers-statement-changes-melbournes-restrictions-2-august-2020>.
- Hsieh, H. F., and S. E. Shannon. 2005. Three approaches to qualitative content analysis. *Qualitative Health Research* 15 (9):1277–88. doi:10.1177/1049732305276687.
- Li, G., D. Tang, B. Song, C. Wang, S. Qunshan, C. Xu, H. Geng, H. Wu, X. He, and Y. Cao. 2020. Impact of the COVID-19 pandemic on partner relationships and sexual and reproductive health: Cross-sectional, online survey study. *Journal of Medical Internet Research* 22 (8):e20961. doi:10.2196/20961.
- Lumivero. 2017. *NVivo qualitative data analysis software*. Vol. 12. Massachusetts, USA: QSR International Pty Ltd.
- McCrary, J., and S. Sanga. 2021. The impact of the coronavirus lockdown on domestic violence. *American Law and Economics Review* 23 (1):137–63. doi:10.1093/aler/ahab003. PMID: PMC8195232.
- Panzeri, M., R. Ferrucci, A. Cozza, and L. Fontanesi. 2020. Changes in sexuality and quality of couple relationship during the COVID-19 lockdown. *Frontiers in Psychology* 29 (11):565823. doi:10.3389/fpsyg.2020.565823.
- Pietromonaco, P. R., and N. L. Collins. 2017. Interpersonal mechanisms linking close relationships to health. *American Psychologist* 72 (6):531–42. doi:10.1037/amp0000129.
- Schröder, J., E. Bruns, W. Schoon, P. Briken, and D. Schöttle. 2021. Changes in sexual interests and experiences during the COVID-19 pandemic - a qualitative content analysis. *Psychotherapeut (Berl)* 66 (3):233–9. doi:10.1007/s00278-021-00506-5.
- Wignall, L., E. Portch, M. McCormack, R. Owens, C. J. Cascalheira, J. Attard-Johnson, and T. Cole. 2021. Changes in sexual desire and behaviors among UK young adults during social lockdown due to COVID-19. *The Journal of Sex Research* 58 (8):976–85. doi:10.1080/00224499.2021.1897067.
- Yuksel, B., and F. Ozgor. 2020. Effect of the COVID-19 pandemic on female sexual behavior. *International Journal of Gynecology & Obstetrics* 150 (1):98–102. doi:10.1002/ijgo.13193.